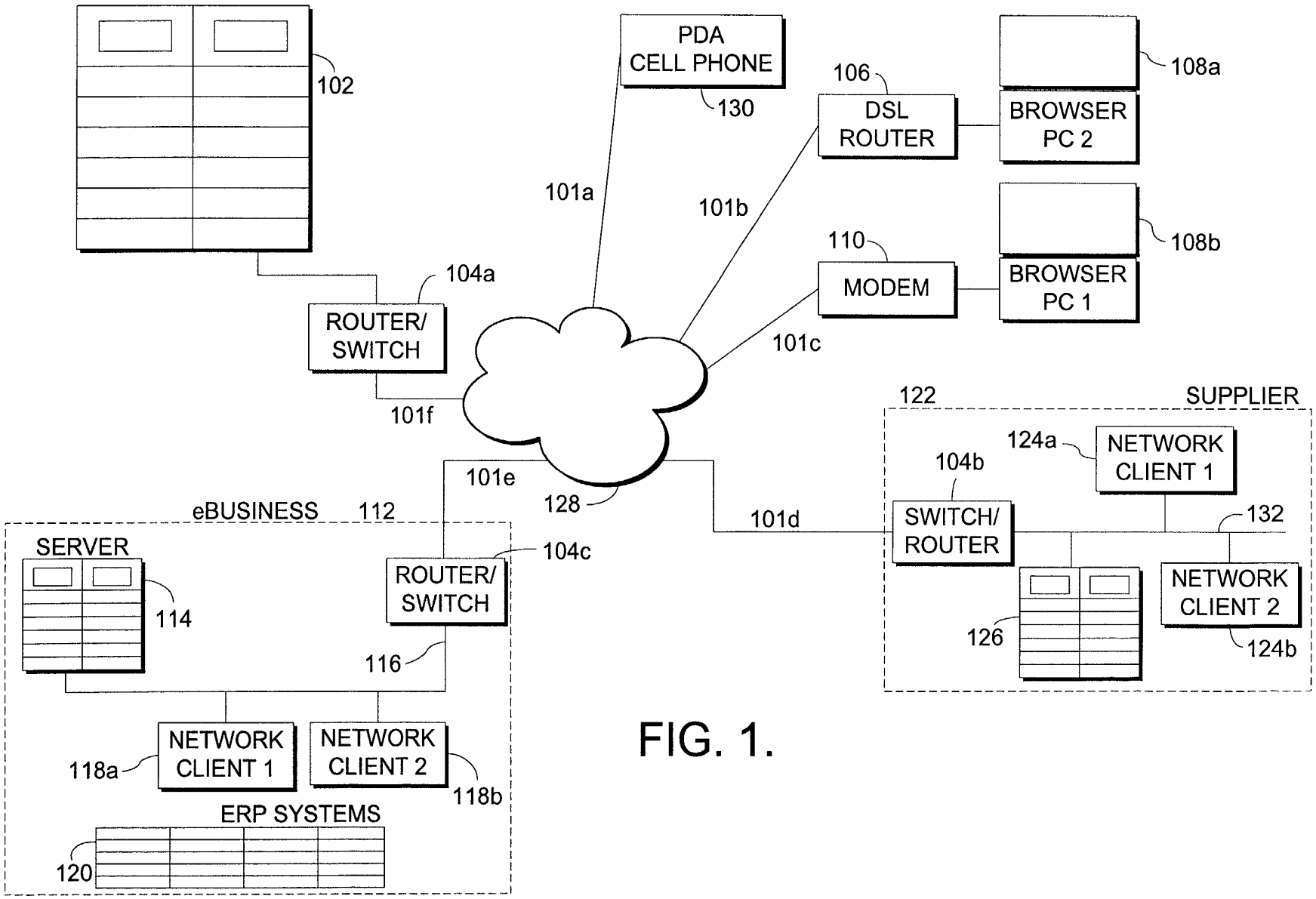

102
PDA
CELL PHONE
130
106
DSL
ROUTER
108a
BROWSER
PC 2
101a
101b
110
MODEM
108b
BROWSER
PC 1
104a
ROUTER/
SWITCH
101c
101f
122
SUPPLIER
124a
NETWORK
CLIENT 1
104b
101e
128
101d
SWITCH/
ROUTER
132
eBUSINESS
112
SERVER
104c
ROUTER/
SWITCH
114
126
NETWORK
CLIENT 2
124b
116
NETWORK
CLIENT 1
NETWORK
CLIENT 2
118a
118b
ERP SYSTEMS
120

FIG. 1.

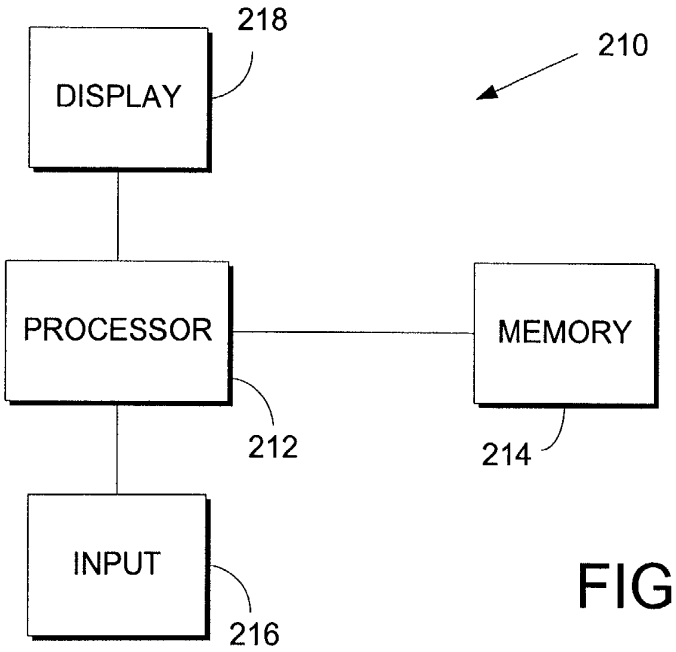


FIG. 2.

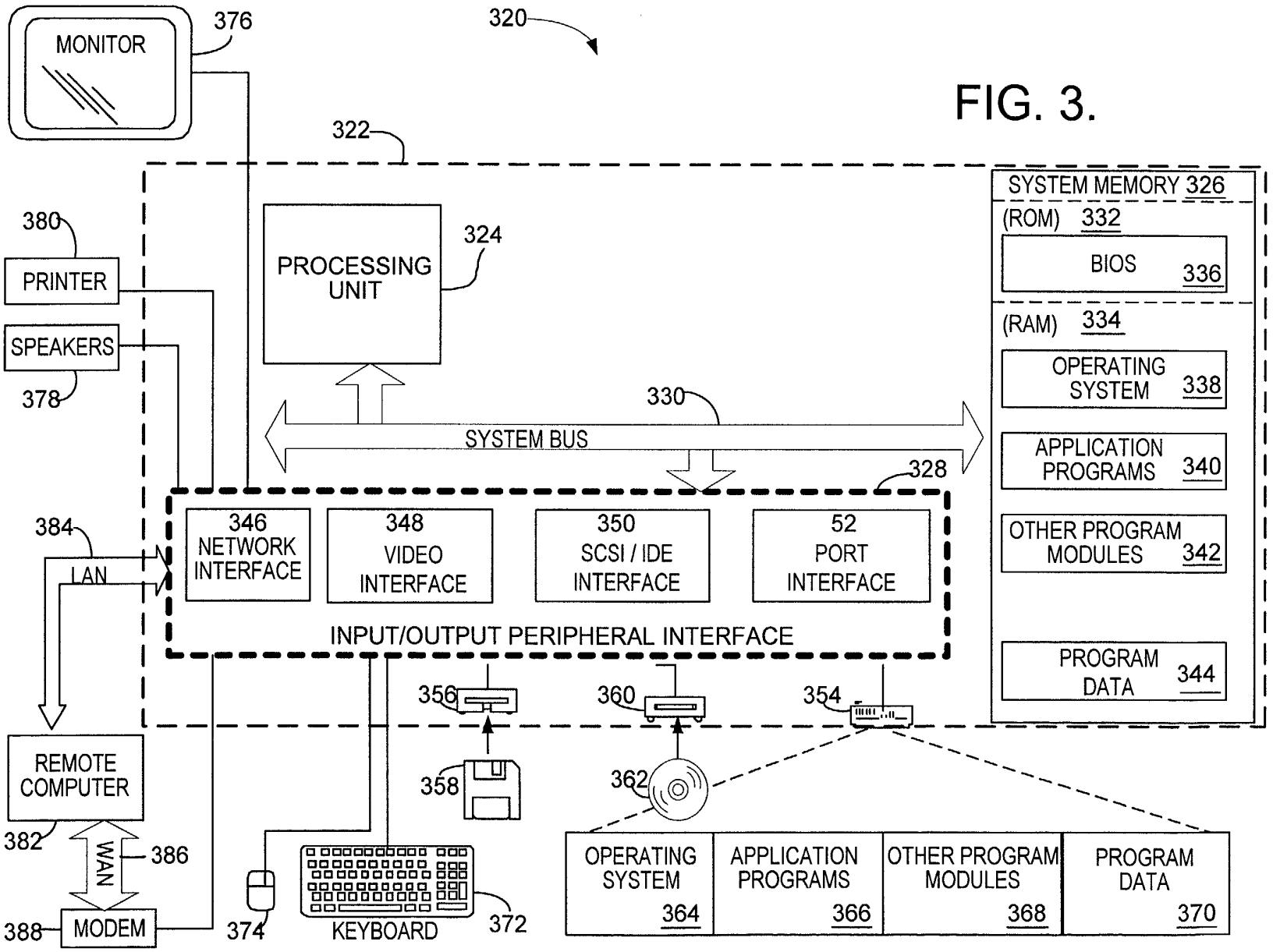

320
MONITOR
376
322
SYSTEM MEMORY 326
(ROM) 332
BIOS 336
(RAM) 334
OPERATING SYSTEM 338
APPLICATION PROGRAMS 340
OTHER PROGRAM MODULES 342
PROGRAM DATA 344
380
PRINTER
SPEAKERS
378
PROCESSING UNIT
324
330
SYSTEM BUS
328
384
LAN
346 NETWORK INTERFACE
348 VIDEO INTERFACE
350 SCSI / IDE INTERFACE
52 PORT INTERFACE
INPUT/OUTPUT PERIPHERAL INTERFACE
356
360
354
REMOTE COMPUTER
382
WAN
386
358
362
388
MODEM
374
KEYBOARD
372
OPERATING SYSTEM 364
APPLICATION PROGRAMS 366
OTHER PROGRAM MODULES 368
PROGRAM DATA 370

FIG. 3.

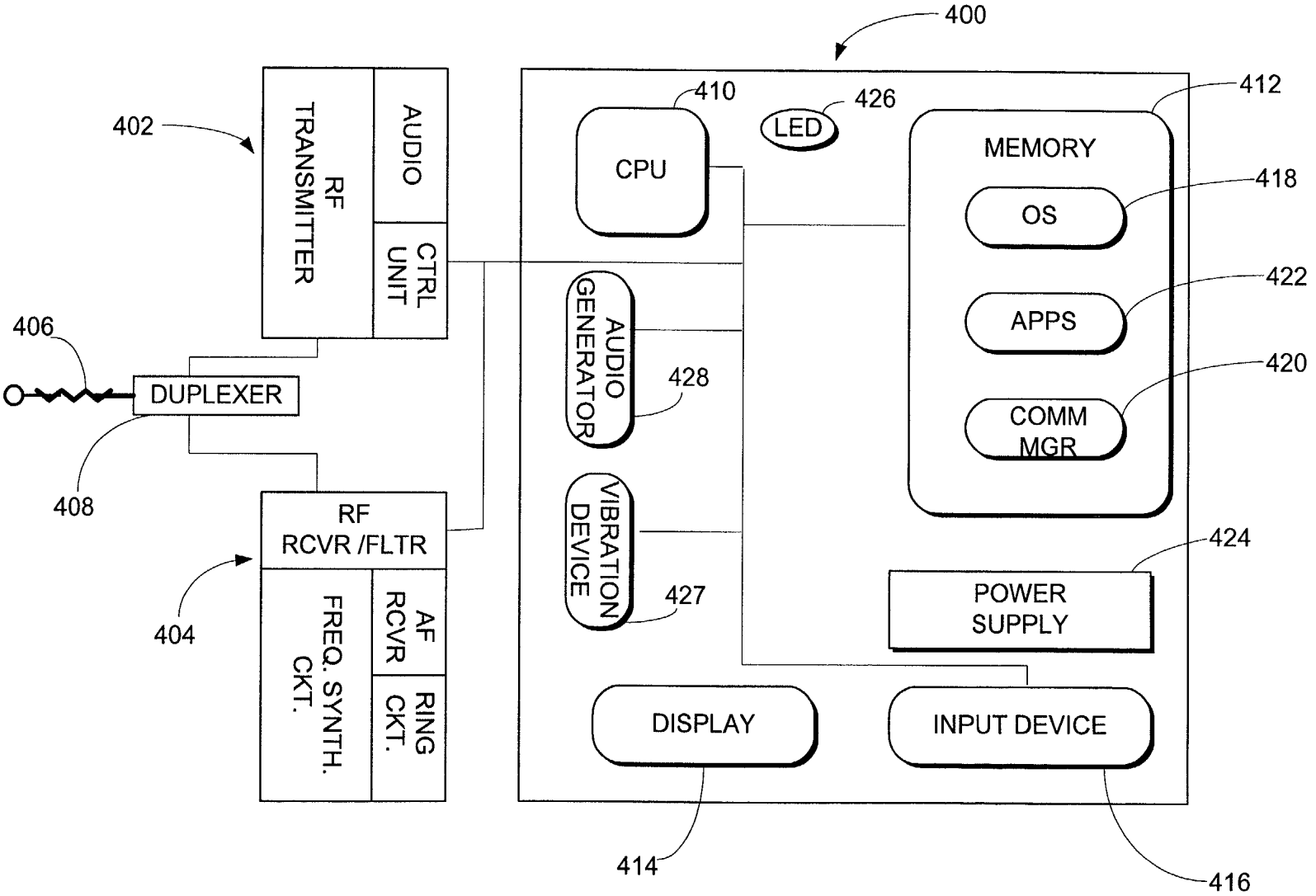

400
402
RF TRANSMITTER
AUDIO
CTRL UNIT
406
DUPLEXER
408
RF RCVR /FLTR
404
FREQ. SYNTH. CKT.
AF RCVR
RING CKT.
410
CPU
426
LED
412
MEMORY
418
OS
422
APPS
420
COMM MGR
AUDIO GENERATOR
428
VIBRATION DEVICE
427
424
POWER SUPPLY
DISPLAY
INPUT DEVICE
414
416

FIG. 4.

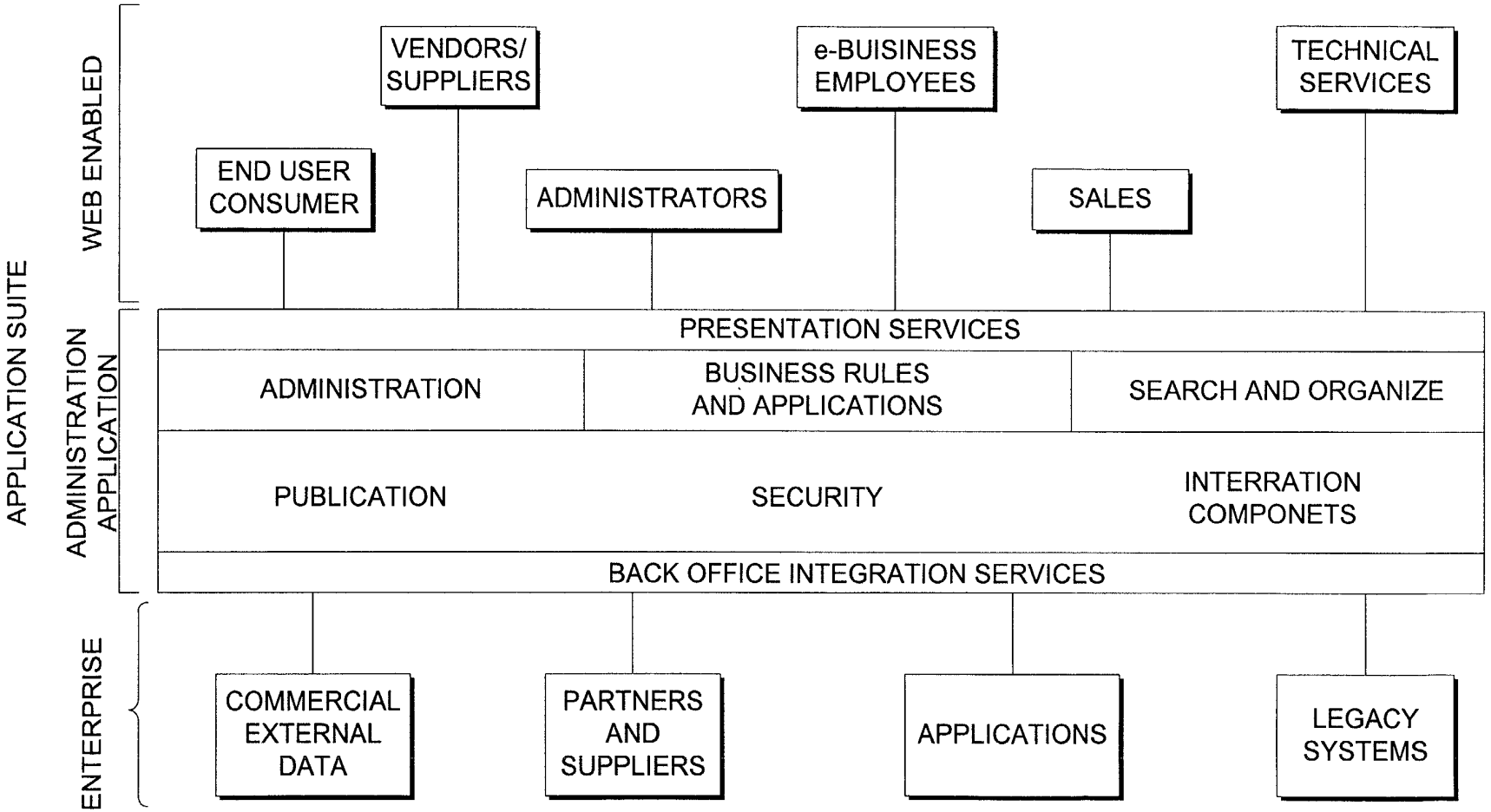

APPLICATION SUITE
WEB ENABLED
ADMINISTRATION APPLICATION
ENTERPRISE
VENDORS/ SUPPLIERS
e-BUISINESS EMPLOYEES
TECHNICAL SERVICES
END USER CONSUMER
ADMINISTRATORS
SALES
PRESENTATION SERVICES
ADMINISTRATION
BUSINESS RULES AND APPLICATIONS
SEARCH AND ORGANIZE
PUBLICATION
SECURITY
INTERRATION COMPONETS
BACK OFFICE INTEGRATION SERVICES
COMMERCIAL EXTERNAL DATA
PARTNERS AND SUPPLIERS
APPLICATIONS
LEGACY SYSTEMS

FIG. 5.

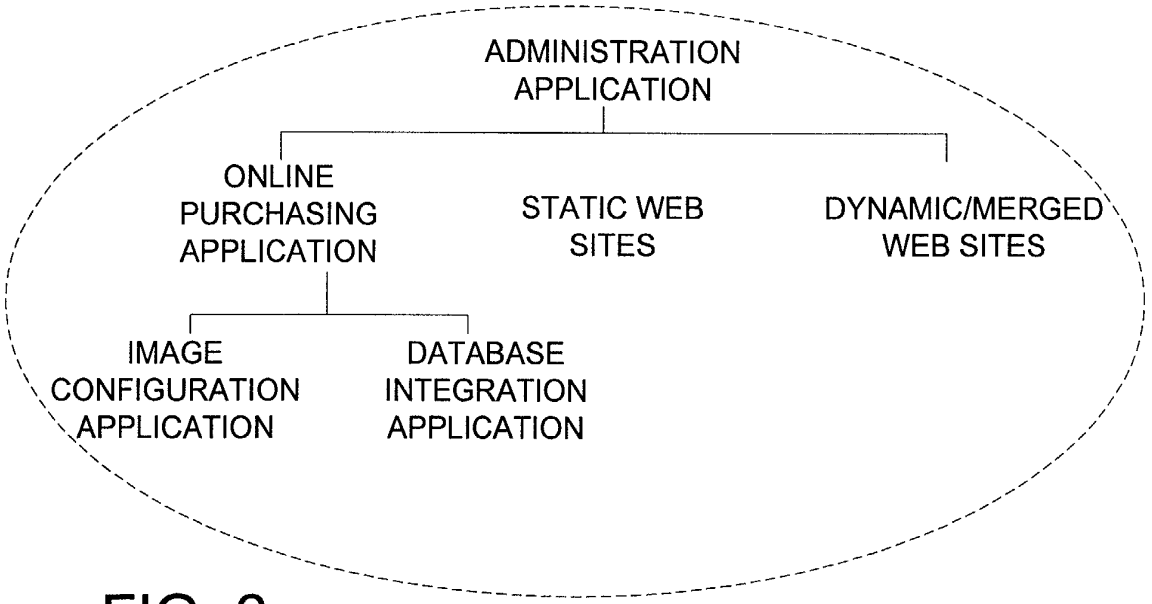

ADMINISTRATION APPLICATION
ONLINE PURCHASING APPLICATION
STATIC WEB SITES
DYNAMIC/MERGED WEB SITES
IMAGE CONFIGURATION APPLICATION
DATABASE INTEGRATION APPLICATION
APPLICATION SUITE

FIG. 6.

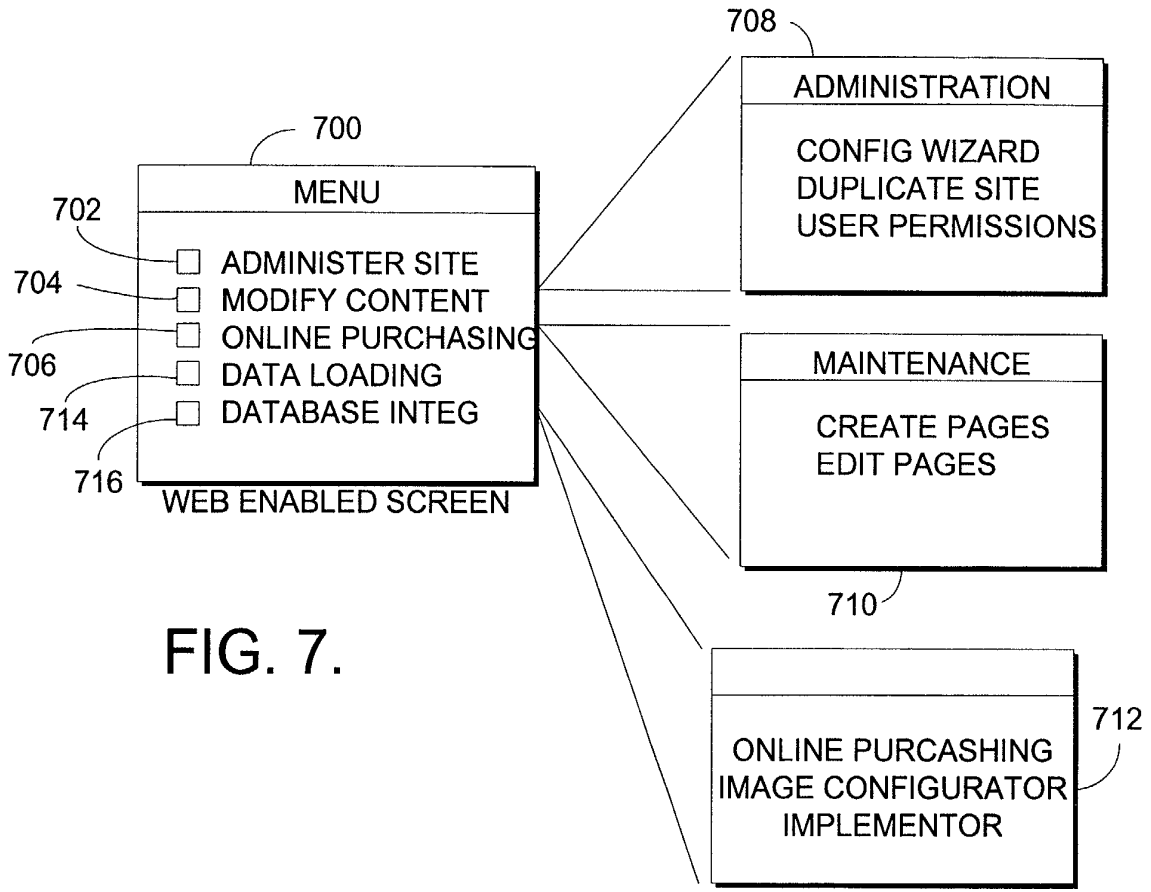

708
ADMINISTRATION
CONFIG WIZARD
DUPLICATE SITE
USER PERMISSIONS
700
MENU
702
ADMINISTER SITE
704
MODIFY CONTENT
ONLINE PURCHASING
706
DATA LOADING
714
DATABASE INTEG
716
WEB ENABLED SCREEN
MAINTENANCE
CREATE PAGES
EDIT PAGES
710
712
ONLINE PURCASHING
IMAGE CONFIGURATOR
IMPLEMENTOR

FIG. 7.

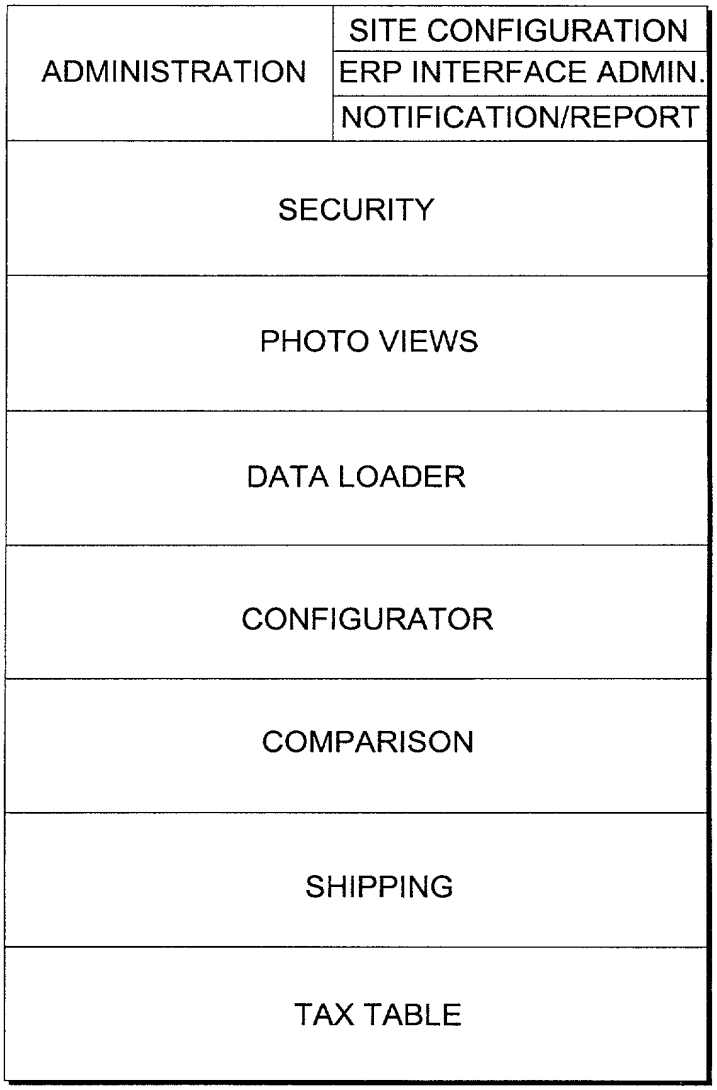
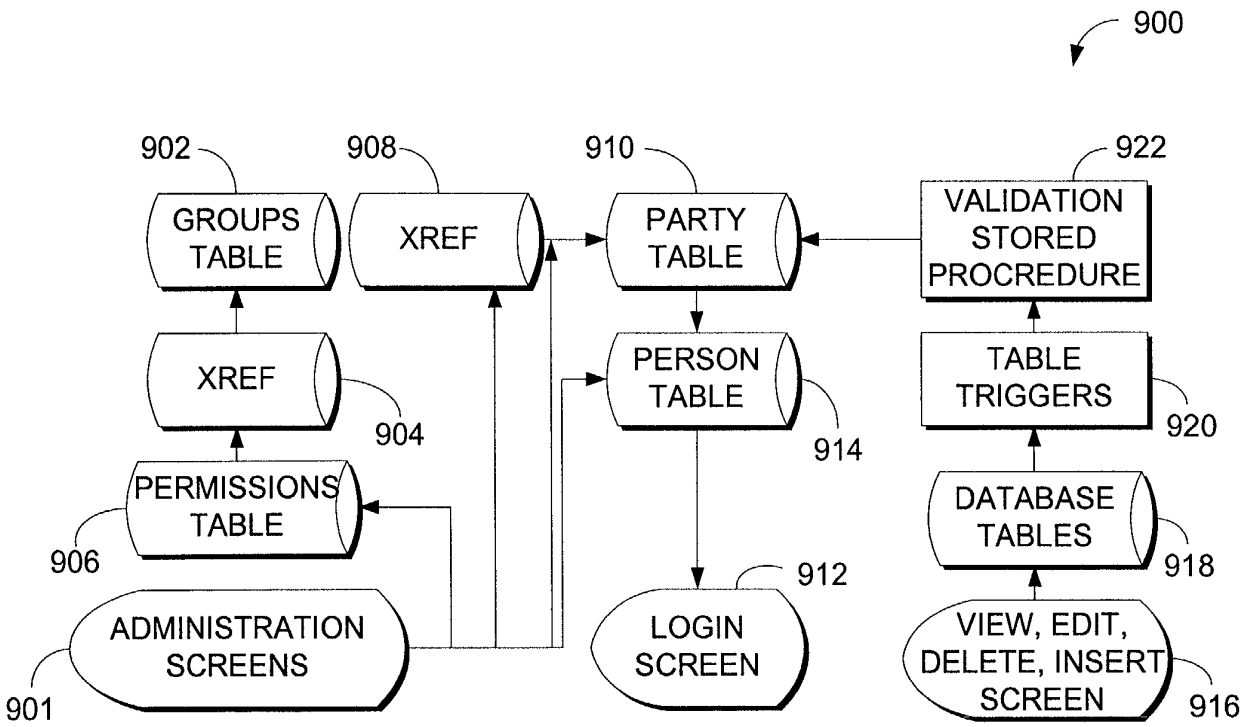

ADMINISTRATION
SITE CONFIGURATION
ERP INTERFACE ADMIN.
NOTIFICATION/REPORT
SECURITY
PHOTO VIEWS
DATA LOADER
CONFIGURATOR
COMPARISON
SHIPPING
TAX TABLE

FIG. 8.

FIG. 9.


900
902
GROUPS TABLE
908
XREF
910
PARTY TABLE
922
VALIDATION STORED PROCREDURE
XREF
904
PERSON TABLE
914
TABLE TRIGGERS
920
PERMISSIONS TABLE
906
DATABASE TABLES
918
912
ADMINISTRATION SCREENS
901
LOGIN SCREEN
VIEW, EDIT, DELETE, INSERT SCREEN
916

20020 Microsoft

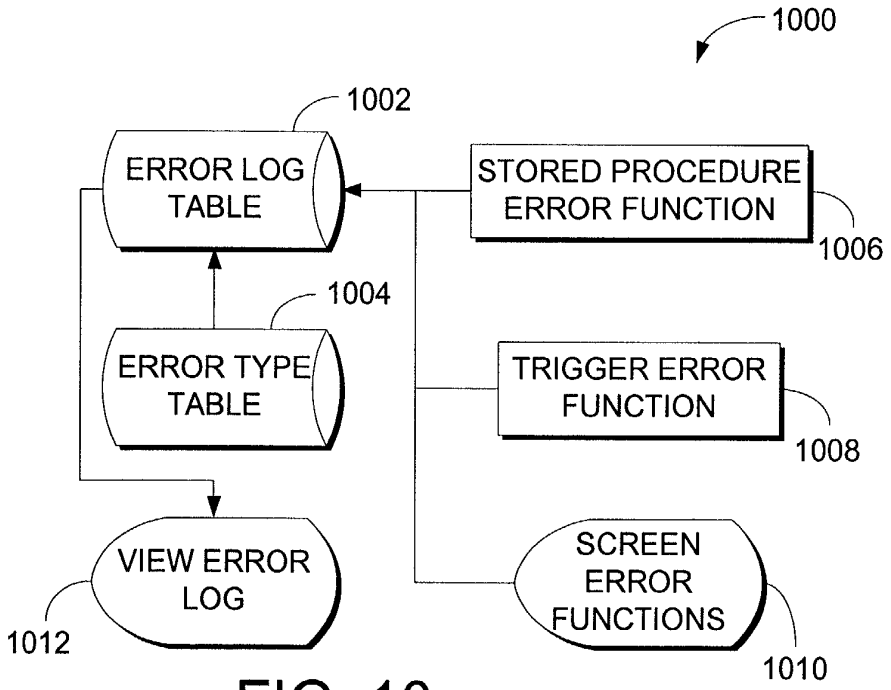


FIG. 10.

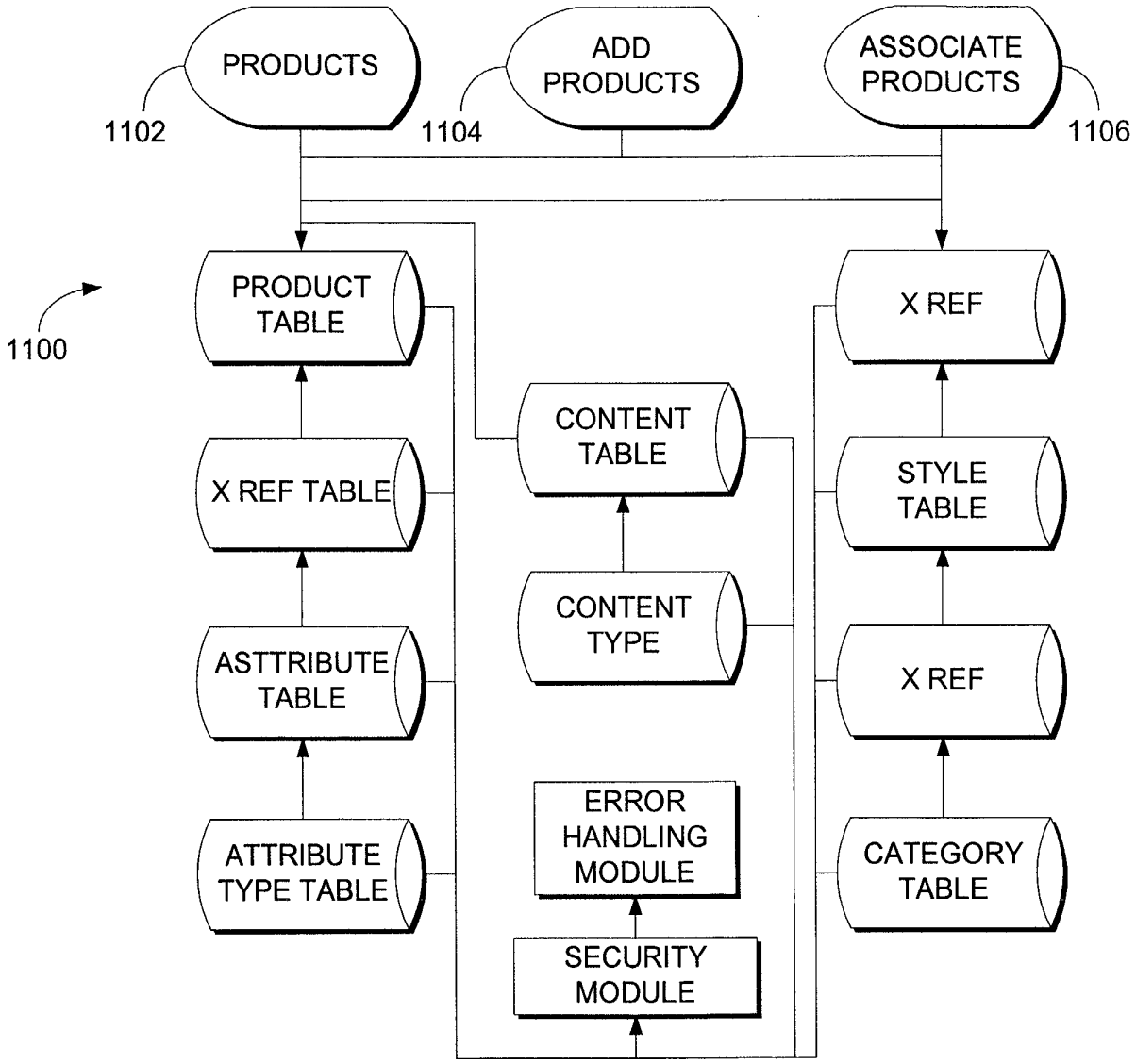

PRODUCTS
ADD PRODUCTS
ASSOCIATE PRODUCTS
1102
1104
1106
1100
PRODUCT TABLE
X REF TABLE
ASTTRIBUTE TABLE
ATTRIBUTE TYPE TABLE
CONTENT TABLE
CONTENT TYPE
ERROR HANDLING MODULE
SECURITY MODULE
X REF
STYLE TABLE
X REF
CATEGORY TABLE

FIG. 11.

20070 Patent

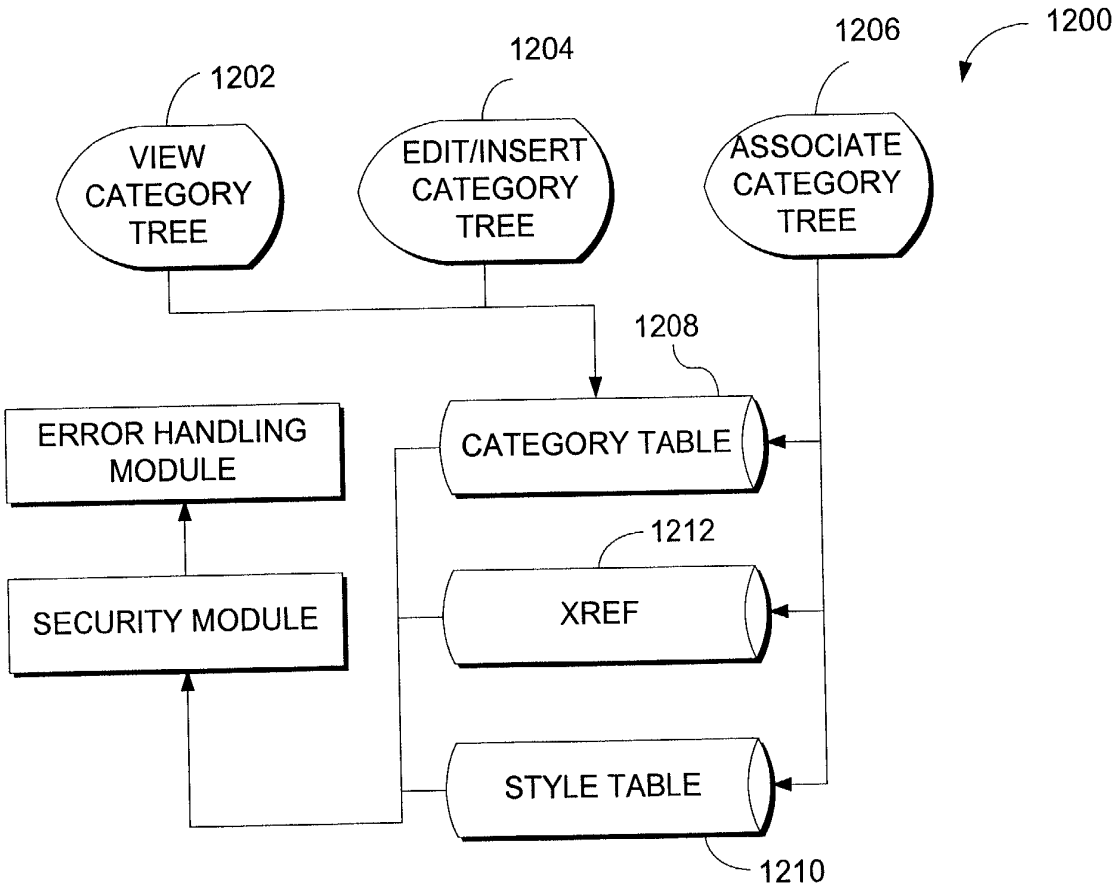


FIG. 12.

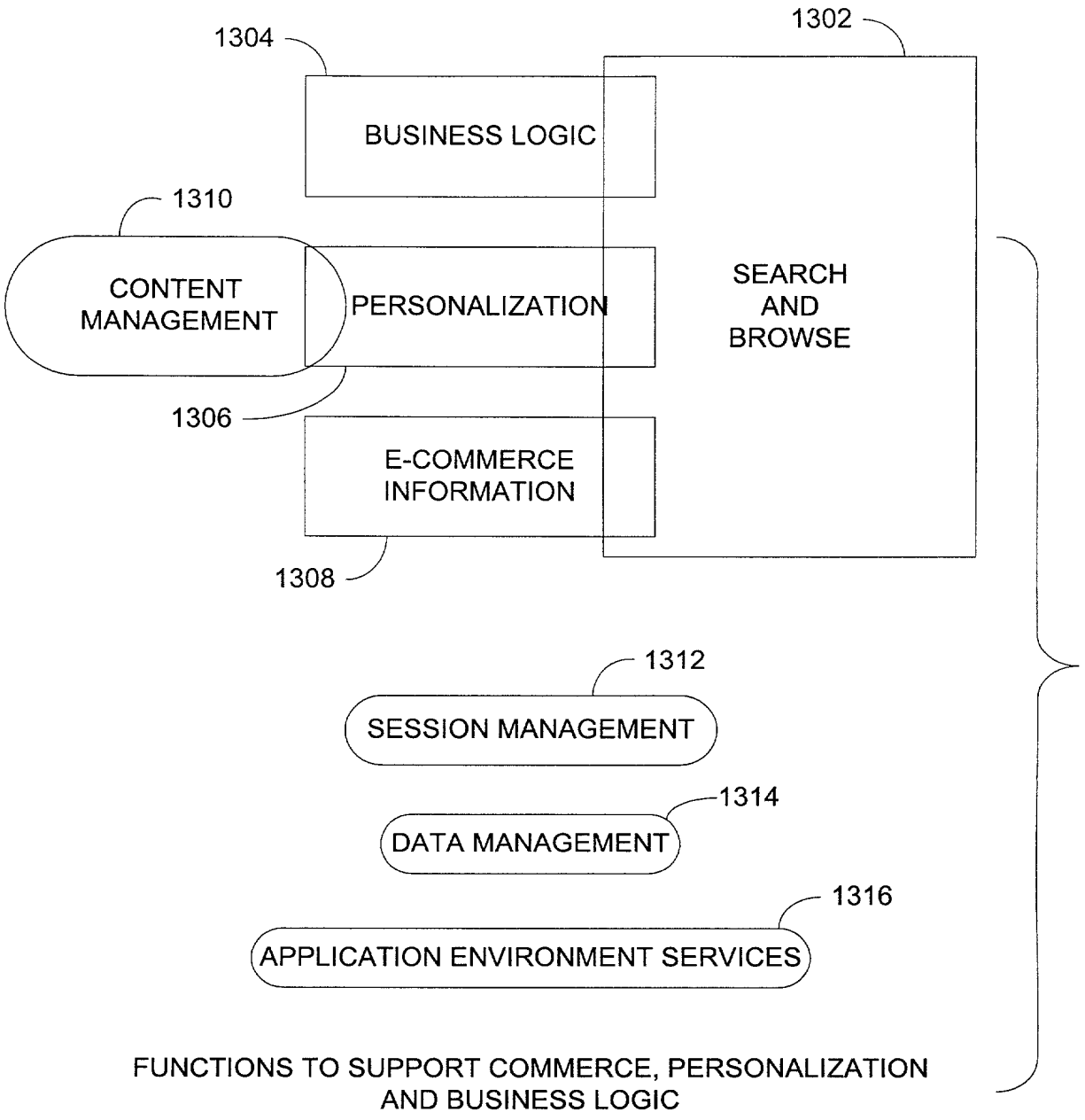

1302
1304
BUSINESS LOGIC
1310
CONTENT MANAGEMENT
PERSONALIZATION
SEARCH AND BROWSE
1306
E-COMMERCE INFORMATION
1308
1312
SESSION MANAGEMENT
1314
DATA MANAGEMENT
1316
APPLICATION ENVIRONMENT SERVICES
FUNCTIONS TO SUPPORT COMMERCE, PERSONALIZATION AND BUSINESS LOGIC

FIG. 13.

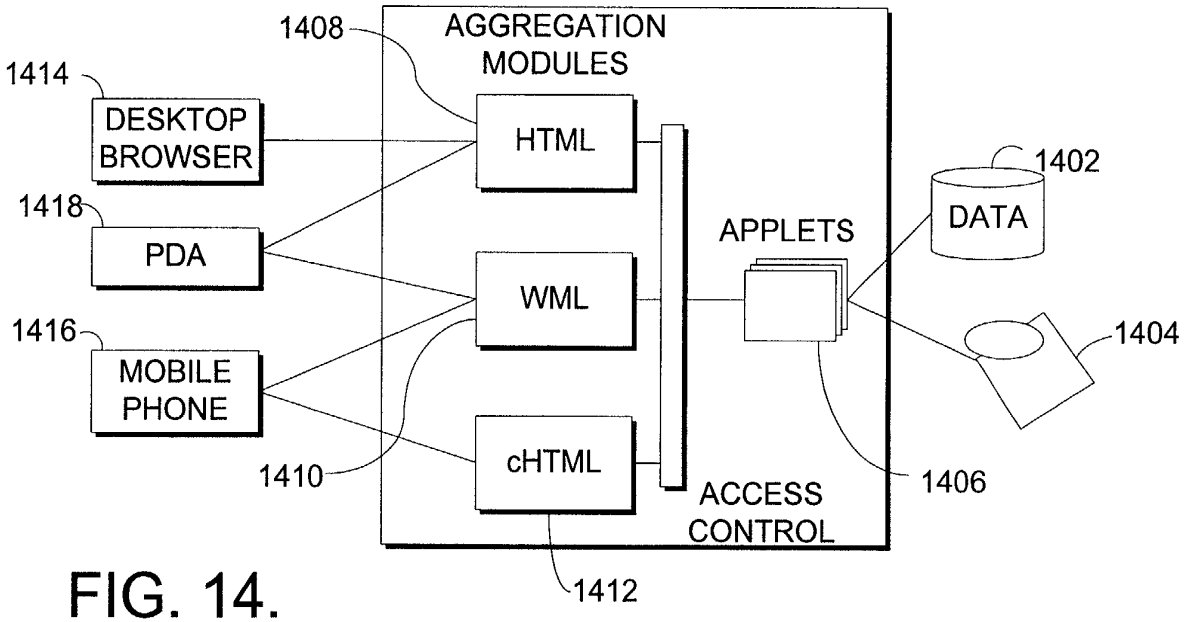

1408
AGGREGATION MODULES
1414
DESKTOP BROWSER
1418
PDA
1416
MOBILE PHONE
HTML
WML
cHTML
1410
APPLETS
1402
DATA
1404
1406
ACCESS CONTROL
1412

FIG. 14.

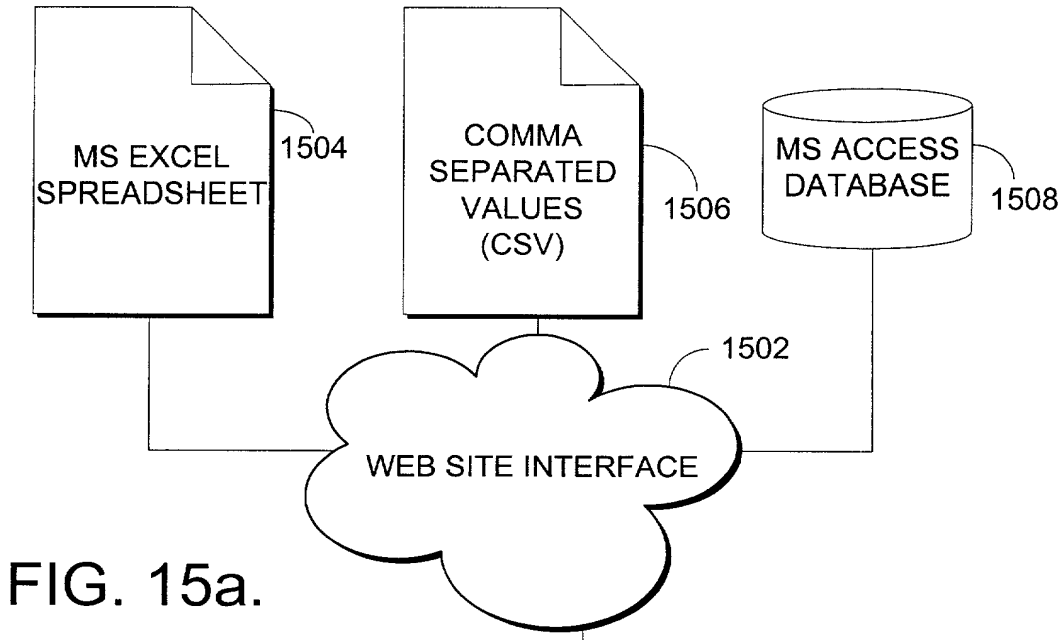
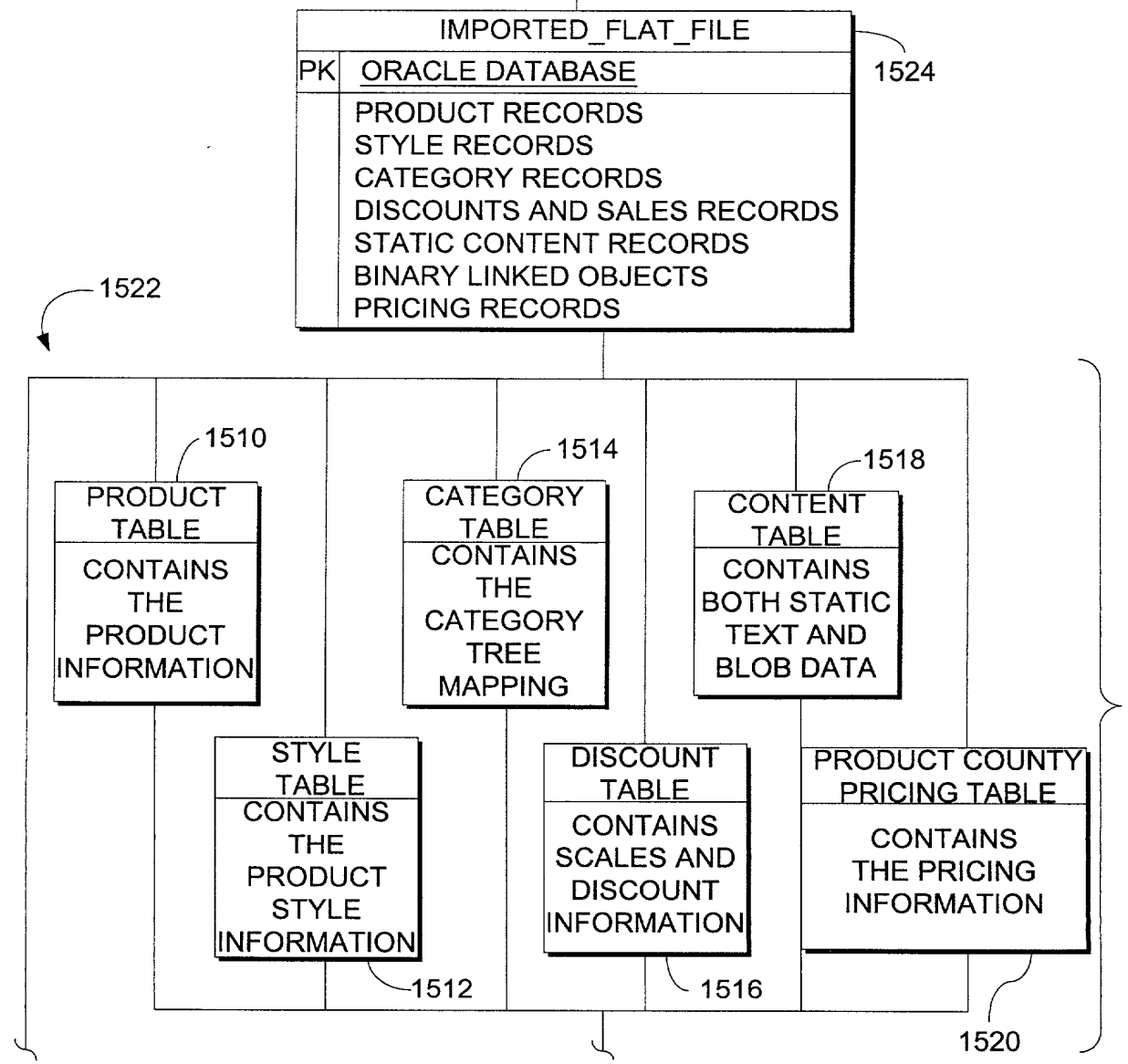

MS EXCEL SPREADSHEET
1504
COMMA SEPARATED VALUES (CSV)
1506
MS ACCESS DATABASE
1508
1502
WEB SITE INTERFACE

FIG. 15a.


IMPORTED_FLAT_FILE
PK ORACLE DATABASE
PRODUCT RECORDS
STYLE RECORDS
CATEGORY RECORDS
DISCOUNTS AND SALES RECORDS
STATIC CONTENT RECORDS
BINARY LINKED OBJECTS
PRICING RECORDS
1524
1522
PRODUCT TABLE
CONTAINS THE PRODUCT INFORMATION
1510
CATEGORY TABLE
CONTAINS THE CATEGORY TREE MAPPING
1514
CONTENT TABLE
CONTAINS BOTH STATIC TEXT AND BLOB DATA
1518
STYLE TABLE
CONTAINS THE PRODUCT STYLE INFORMATION
1512
DISCOUNT TABLE
CONTAINS SCALES AND DISCOUNT INFORMATION
1516
PRODUCT COUNTY PRICING TABLE
CONTAINS THE PRICING INFORMATION
1520

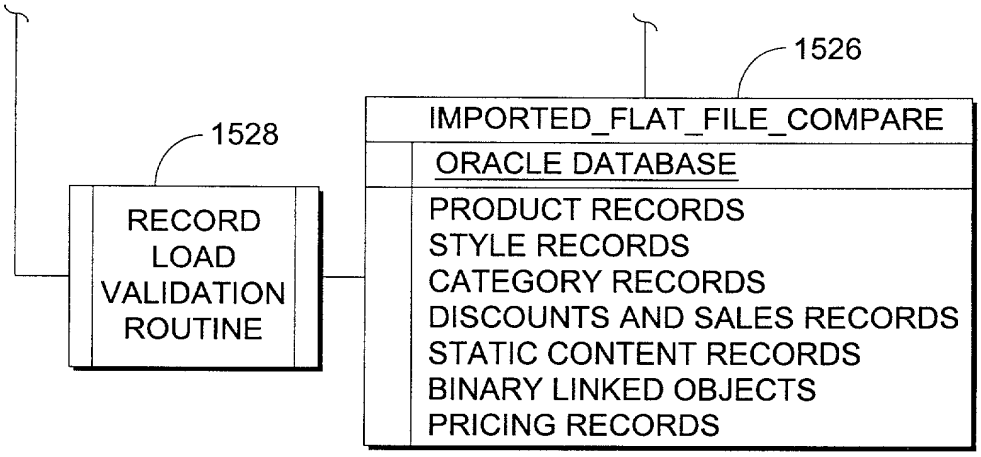

1526
IMPORTED_FLAT_FILE_COMPARE
ORACLE DATABASE
PRODUCT RECORDS
STYLE RECORDS
CATEGORY RECORDS
DISCOUNTS AND SALES RECORDS
STATIC CONTENT RECORDS
BINARY LINKED OBJECTS
PRICING RECORDS
1528
RECORD LOAD VALIDATION ROUTINE

FIG. 15b.

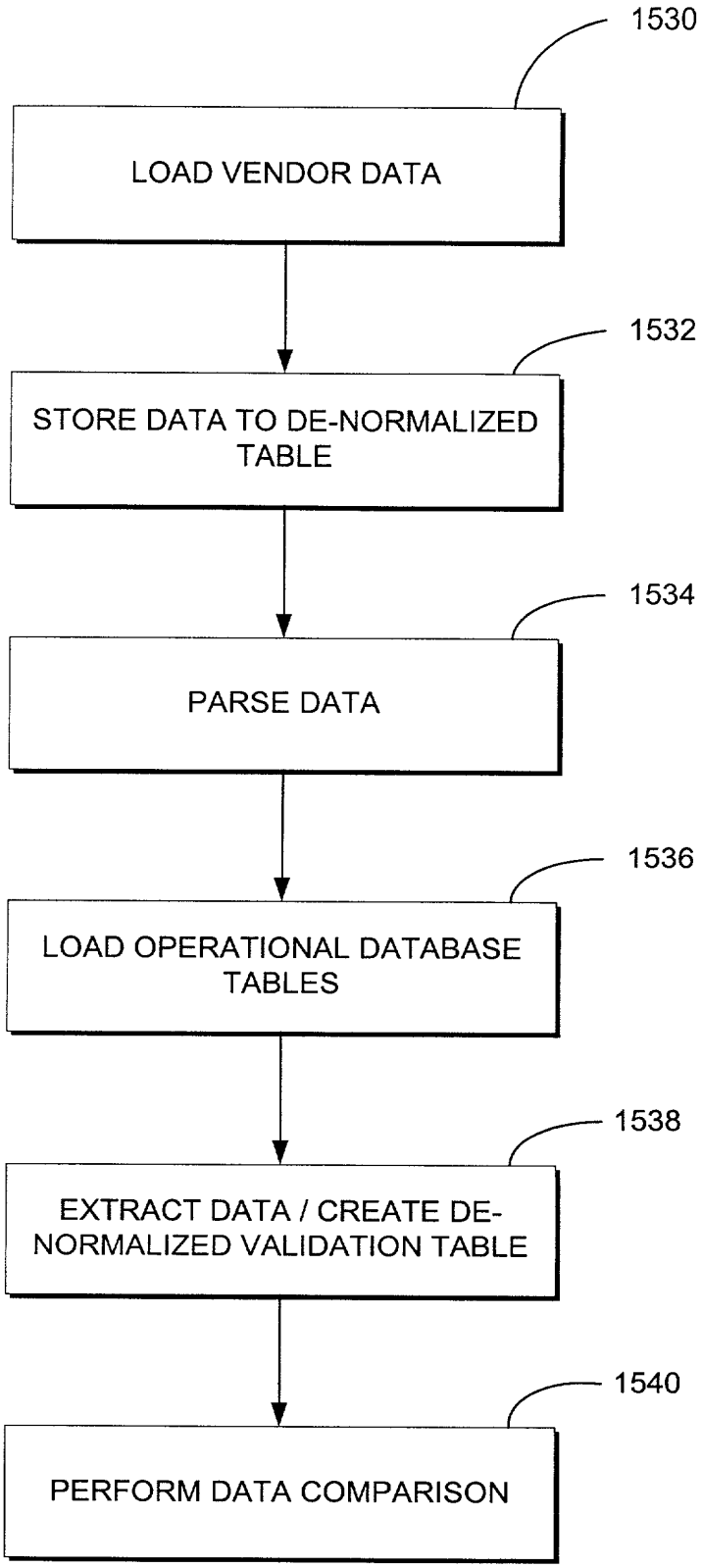

1530
LOAD VENDOR DATA
1532
STORE DATA TO DE-NORMALIZED TABLE
1534
PARSE DATA
1536
LOAD OPERATIONAL DATABASE TABLES
1538
EXTRACT DATA / CREATE DE-NORMALIZED VALIDATION TABLE
1540
PERFORM DATA COMPARISON

FIG. 15c.

20070131031307

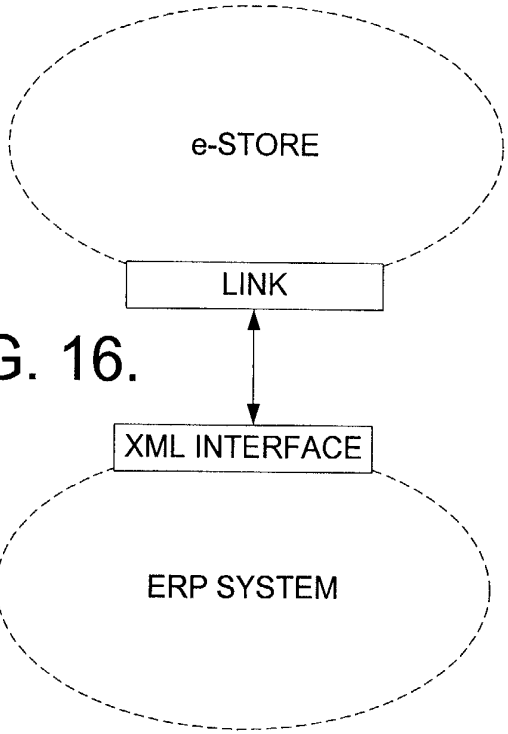
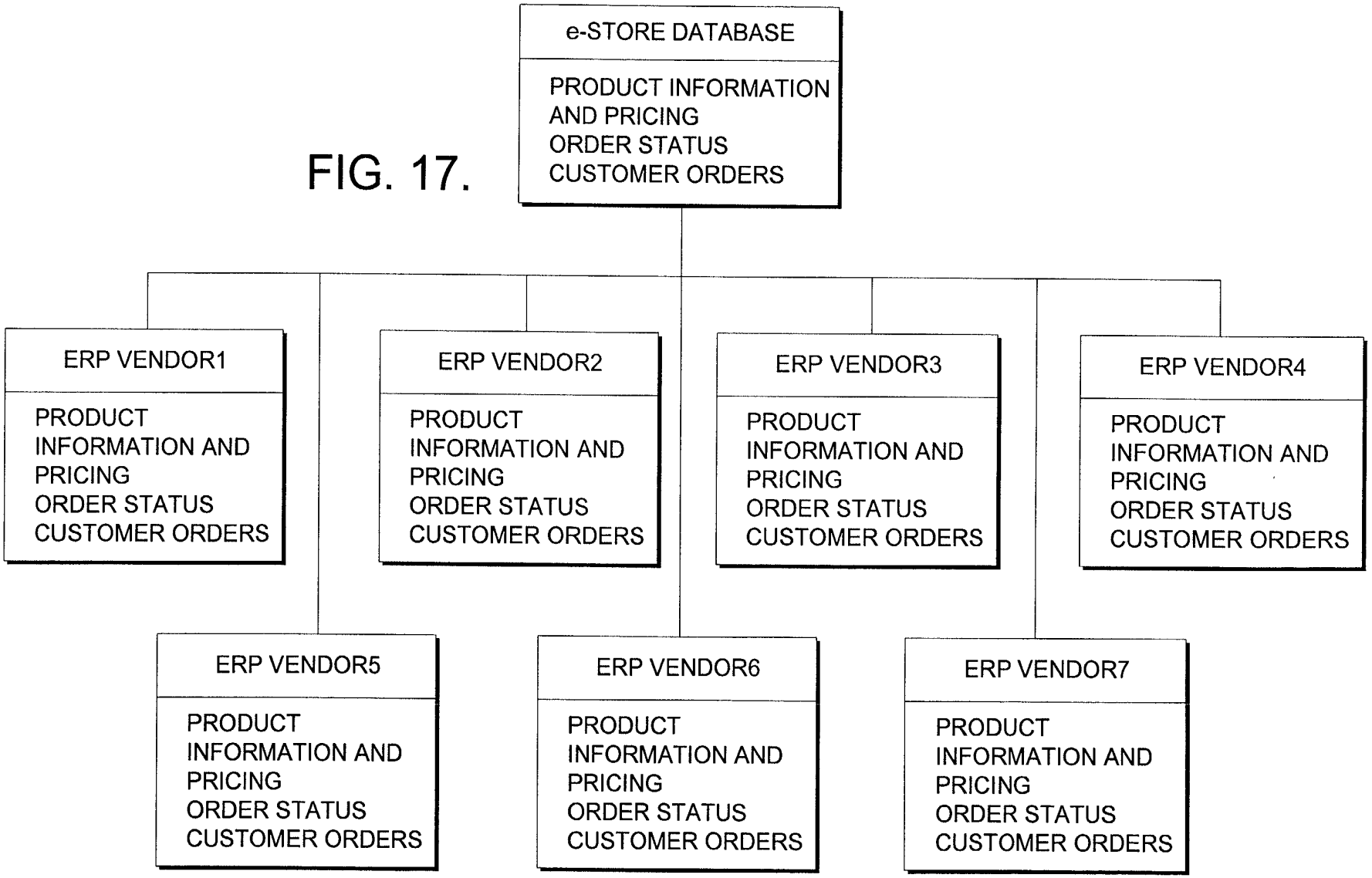


FIG. 16.

FIG. 17.


e-STORE DATABASE
PRODUCT INFORMATION AND PRICING
ORDER STATUS
CUSTOMER ORDERS
ERP VENDOR1
PRODUCT INFORMATION AND PRICING
ORDER STATUS
CUSTOMER ORDERS
ERP VENDOR2
PRODUCT INFORMATION AND PRICING
ORDER STATUS
CUSTOMER ORDERS
ERP VENDOR3
PRODUCT INFORMATION AND PRICING
ORDER STATUS
CUSTOMER ORDERS
ERP VENDOR4
PRODUCT INFORMATION AND PRICING
ORDER STATUS
CUSTOMER ORDERS
ERP VENDOR5
PRODUCT INFORMATION AND PRICING
ORDER STATUS
CUSTOMER ORDERS
ERP VENDOR6
PRODUCT INFORMATION AND PRICING
ORDER STATUS
CUSTOMER ORDERS
ERP VENDOR7
PRODUCT INFORMATION AND PRICING
ORDER STATUS
CUSTOMER ORDERS

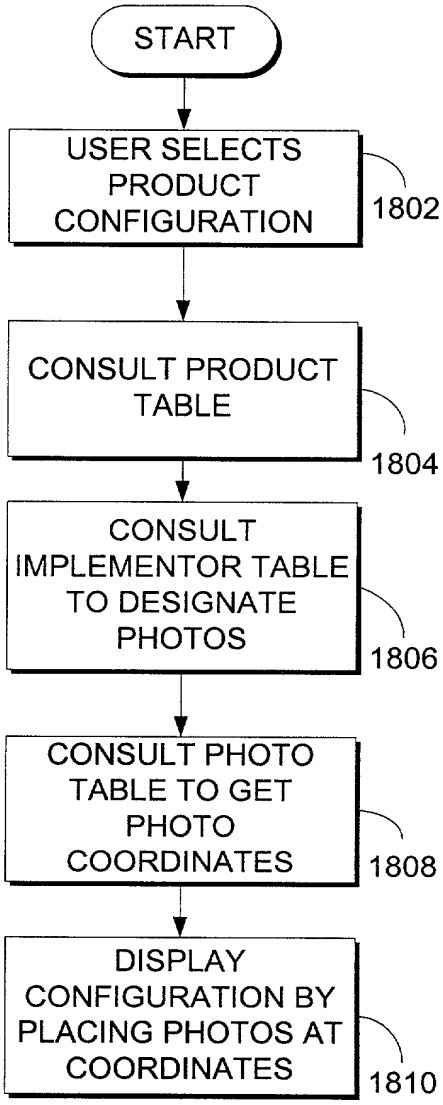

START
USER SELECTS PRODUCT CONFIGURATION
1802
CONSULT PRODUCT TABLE
1804
CONSULT IMPLEMENTOR TABLE TO DESIGNATE PHOTOS
1806
CONSULT PHOTO TABLE TO GET PHOTO COORDINATES
1808
DISPLAY CONFIGURATION BY PLACING PHOTOS AT COORDINATES
1810

FIG. 18.

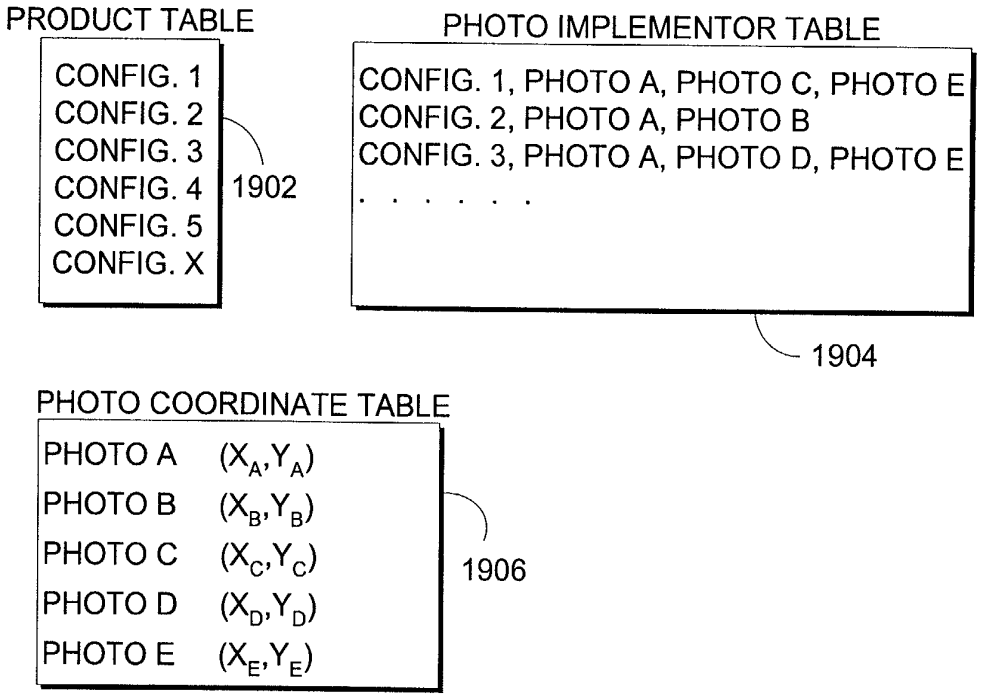

PRODUCT TABLE
CONFIG. 1
CONFIG. 2
CONFIG. 3
CONFIG. 4
CONFIG. 5
CONFIG. X
1902
PHOTO IMPLEMENTOR TABLE
CONFIG. 1, PHOTO A, PHOTO C, PHOTO E
CONFIG. 2, PHOTO A, PHOTO B
CONFIG. 3, PHOTO A, PHOTO D, PHOTO E
. . . . . .
1904
PHOTO COORDINATE TABLE
PHOTO A (X_A,Y_A)
PHOTO B (X_B,Y_B)
PHOTO C (X_C,Y_C)
PHOTO D (X_D,Y_D)
PHOTO E (X_E,Y_E)
1906

FIG. 19.

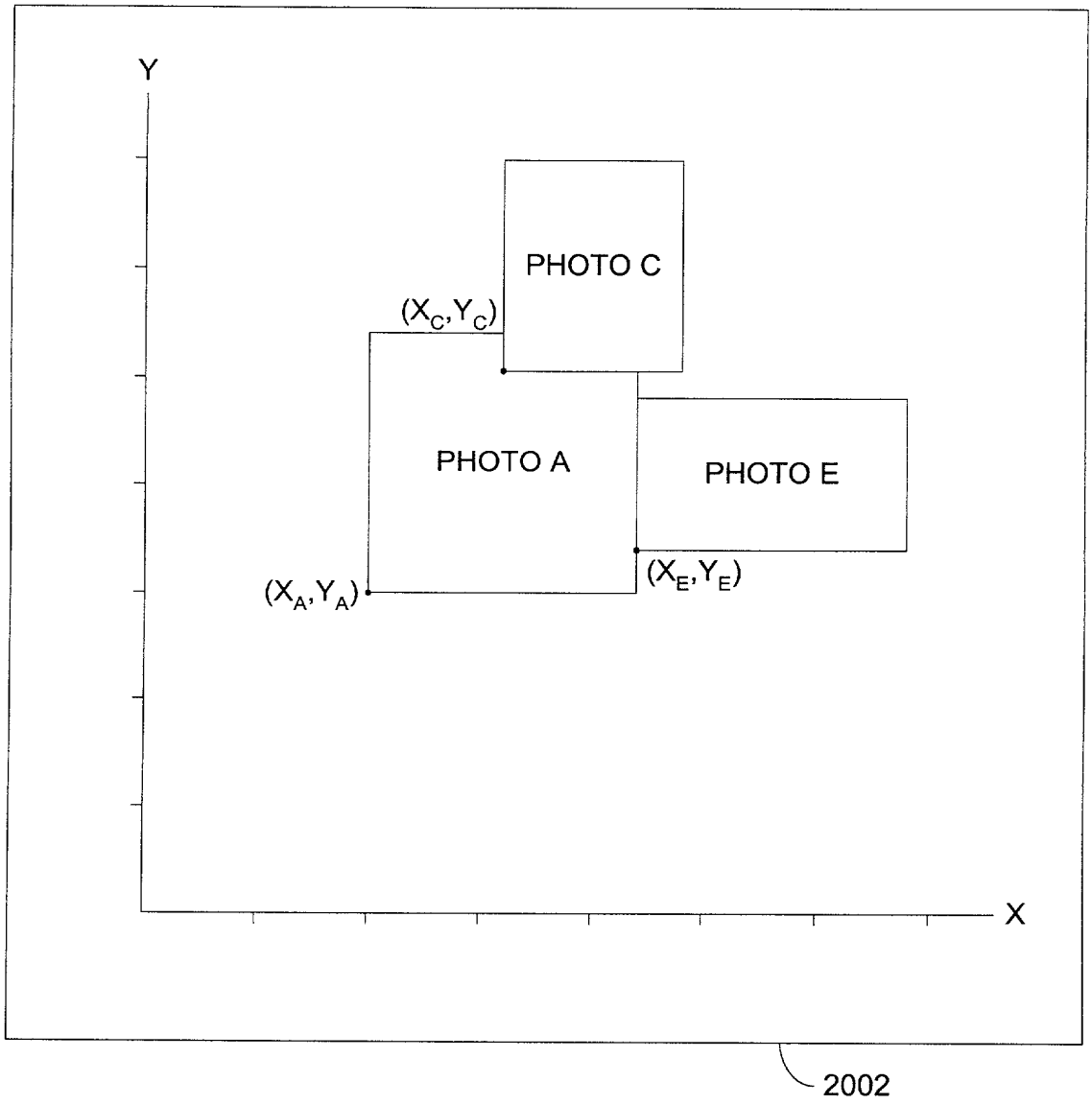


FIG. 20.

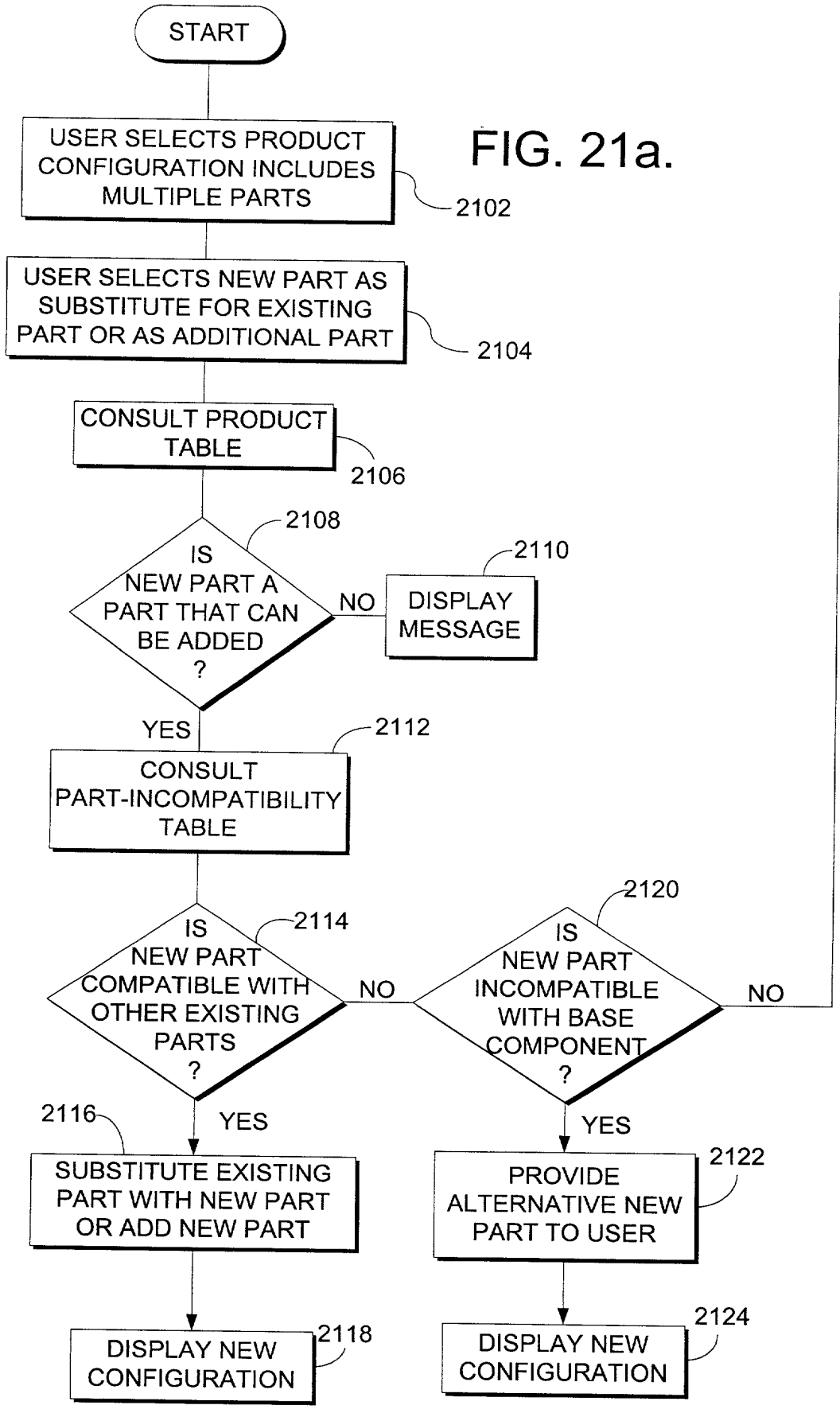

START
USER SELECTS PRODUCT CONFIGURATION INCLUDES MULTIPLE PARTS
2102
USER SELECTS NEW PART AS SUBSTITUTE FOR EXISTING PART OR AS ADDITIONAL PART
2104
CONSULT PRODUCT TABLE
2106
2108
IS NEW PART A PART THAT CAN BE ADDED ?
NO
2110
DISPLAY MESSAGE
YES
2112
CONSULT PART-INCOMPATIBILITY TABLE
2114
IS NEW PART COMPATIBLE WITH OTHER EXISTING PARTS ?
NO
2120
IS NEW PART INCOMPATIBLE WITH BASE COMPONENT ?
NO
2116
YES
YES
SUBSTITUTE EXISTING PART WITH NEW PART OR ADD NEW PART
PROVIDE ALTERNATIVE NEW PART TO USER
2122
DISPLAY NEW CONFIGURATION
2118
DISPLAY NEW CONFIGURATION
2124

FIG. 21a.

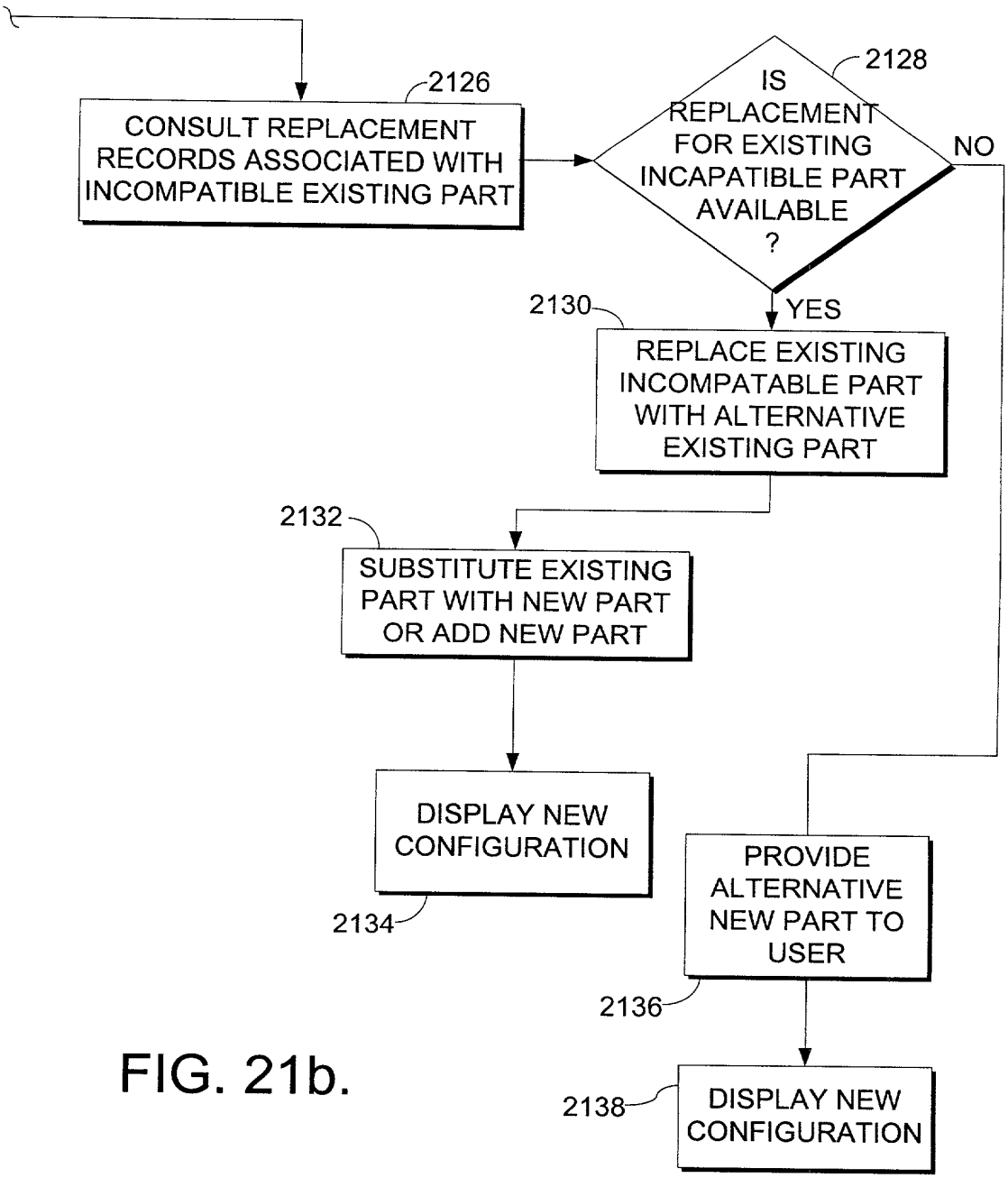

CONSULT REPLACEMENT RECORDS ASSOCIATED WITH INCOMPATIBLE EXISTING PART
2126
IS REPLACEMENT FOR EXISTING INCAPATIBLE PART AVAILABLE ?
2128
NO
YES
2130
REPLACE EXISTING INCOMPATABLE PART WITH ALTERNATIVE EXISTING PART
2132
SUBSTITUTE EXISTING PART WITH NEW PART OR ADD NEW PART
DISPLAY NEW CONFIGURATION
2134
PROVIDE ALTERNATIVE NEW PART TO USER
2136
DISPLAY NEW CONFIGURATION
2138

FIG. 21b.

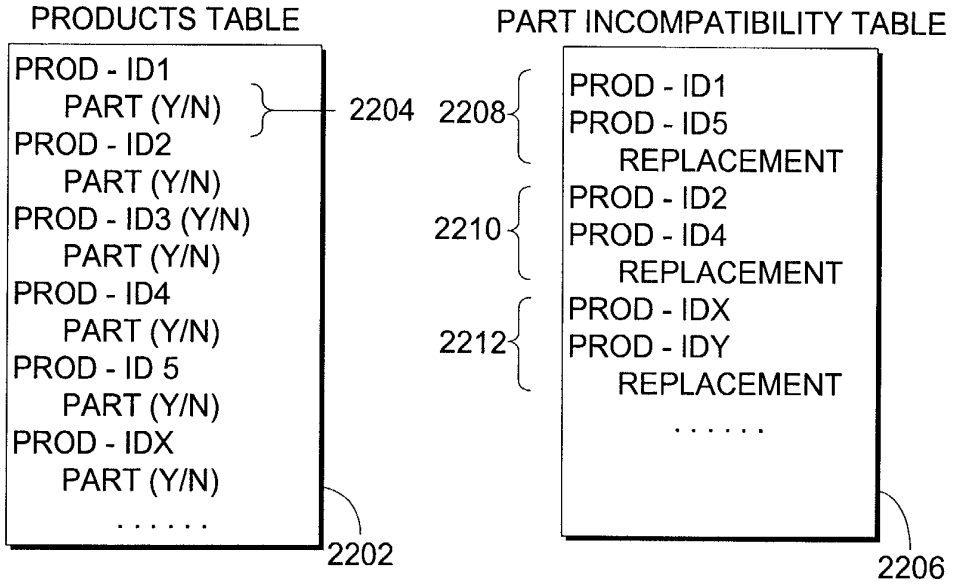
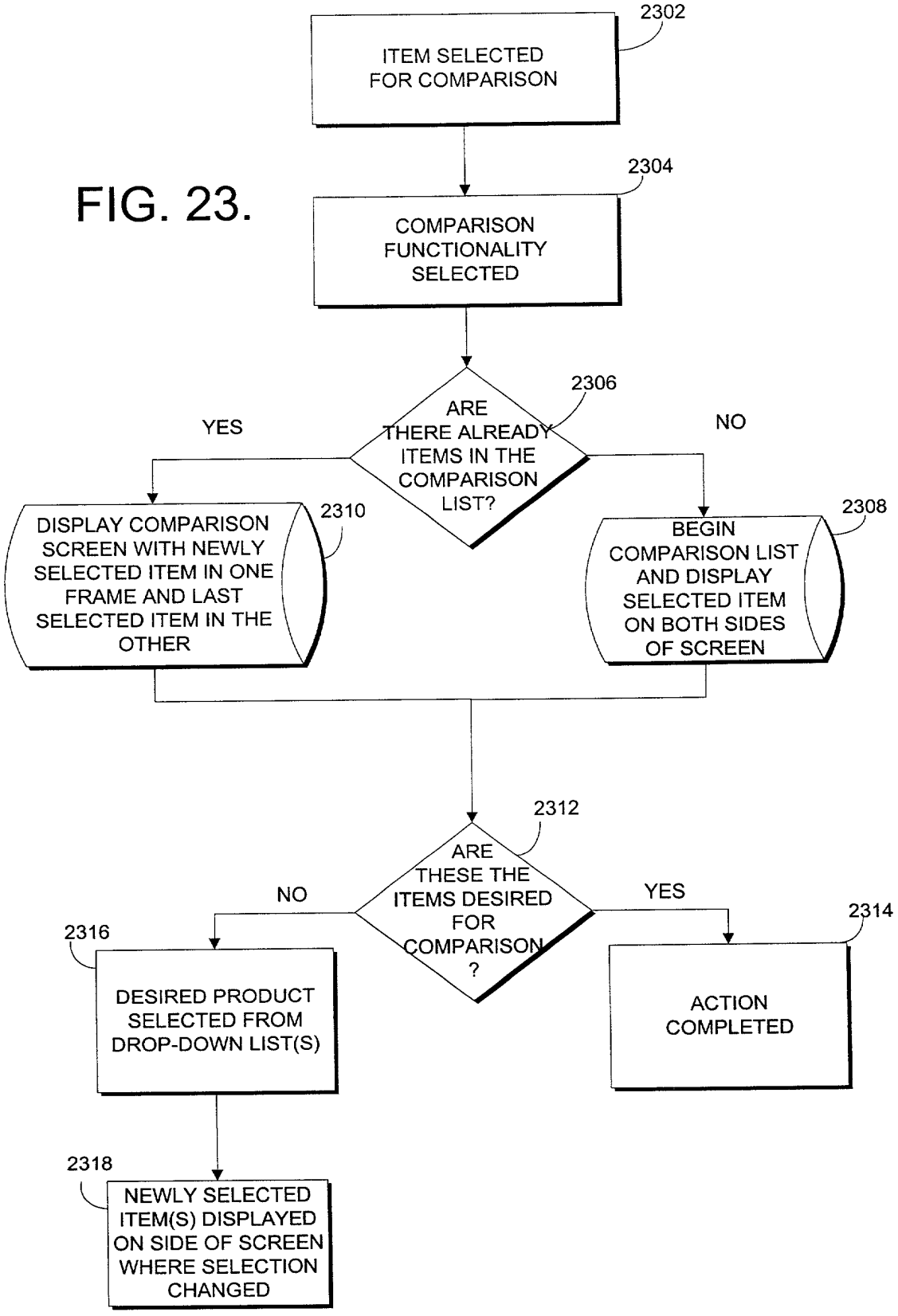

PRODUCTS TABLE
PROD - ID1
PART (Y/N)
PROD - ID2
PART (Y/N)
PROD - ID3 (Y/N)
PART (Y/N)
PROD - ID4
PART (Y/N)
PROD - ID 5
PART (Y/N)
PROD - IDX
PART (Y/N)
. . . . . .
2204
2202
PART INCOMPATIBILITY TABLE
2208
PROD - ID1
PROD - ID5
REPLACEMENT
2210
PROD - ID2
PROD - ID4
REPLACEMENT
2212
PROD - IDX
PROD - IDY
REPLACEMENT
. . . . . .
2206

FIG. 22.

FIG. 23.


2302
ITEM SELECTED FOR COMPARISON
2304
COMPARISON FUNCTIONALITY SELECTED
2306
ARE THERE ALREADY ITEMS IN THE COMPARISON LIST?
YES
NO
2310
DISPLAY COMPARISON SCREEN WITH NEWLY SELECTED ITEM IN ONE FRAME AND LAST SELECTED ITEM IN THE OTHER
2308
BEGIN COMPARISON LIST AND DISPLAY SELECTED ITEM ON BOTH SIDES OF SCREEN
2312
ARE THESE THE ITEMS DESIRED FOR COMPARISON ?
NO
YES
2316
DESIRED PRODUCT SELECTED FROM DROP-DOWN LIST(S)
2314
ACTION COMPLETED
2318
NEWLY SELECTED ITEM(S) DISPLAYED ON SIDE OF SCREEN WHERE SELECTION CHANGED

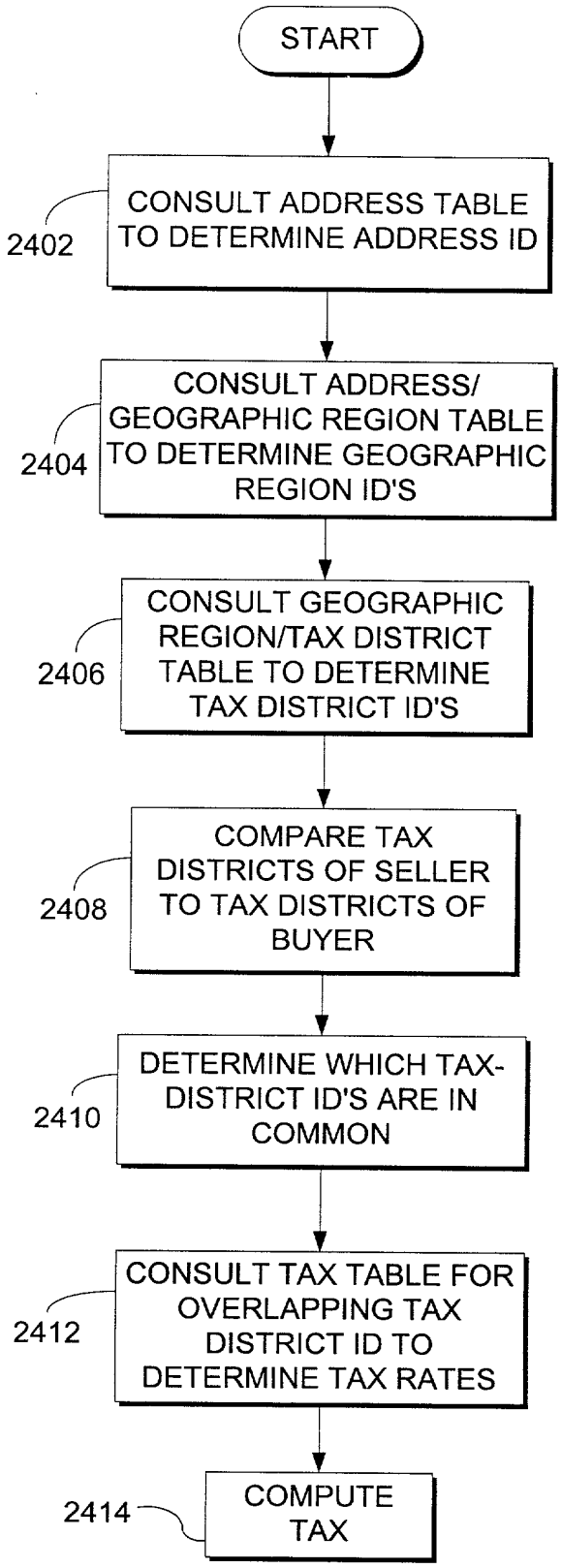

START
2402
CONSULT ADDRESS TABLE TO DETERMINE ADDRESS ID
2404
CONSULT ADDRESS/ GEOGRAPHIC REGION TABLE TO DETERMINE GEOGRAPHIC REGION ID'S
2406
CONSULT GEOGRAPHIC REGION/TAX DISTRICT TABLE TO DETERMINE TAX DISTRICT ID'S
2408
COMPARE TAX DISTRICTS OF SELLER TO TAX DISTRICTS OF BUYER
2410
DETERMINE WHICH TAX-DISTRICT ID'S ARE IN COMMON
2412
CONSULT TAX TABLE FOR OVERLAPPING TAX DISTRICT ID TO DETERMINE TAX RATES
2414
COMPUTE TAX

FIG. 24.

ADDRESS TABLE

ADDRESS 1,	ADD-ID1
ADDRESS 2,	ADD-ID2
ADDRESS 3,	ADD-ID3
ADDRESS 4,	ADD-ID2
ADDRESS 5,	ADD-ID4
ADDRESS 6,	ADD-ID3
ADDRESS 7,	ADD-ID1
ADDRESS 8,	ADD-ID4

2502

FIG. 25.

ADDRESS/GEOGRAPHIC REGION CROSS-REFERENCE TABLE

ADD-ID1, GEO-ID1, GEO-ID2, GEO-ID3
ADD-ID2, GEO-ID1, GEO-ID2, GEO-ID3, GEO-ID4
ADD-ID3, GEO-ID5, GEO-ID6, GEO-GEO-ID7
ADD--ID4, GEO-ID8, GEO-ID9, GEO-ID10

2602

FIG. 26.

GEOGRAPHIC REGION/TAX DISTRICT
CROSS REFERENCE TABLE

GEO-ID1, TAXDIST-ID1
GEO-ID2, TAXDIST-ID2
GEO-ID3, TAXDIST-ID3, TAXDIST-ID4
GEO-ID4, TAXDIST-ID5
GEO-ID5, TAXDIST-ID6
GEO-ID6, TAXDIST-ID7
GEO-ID7, TAXDIST-ID8, TAXDIST-ID9
GEO-ID8, TAXDIST-ID10
GEO-ID9, TAXDIST-ID11
GEO-ID10, TAXDIST-ID12

2702

FIG. 27.

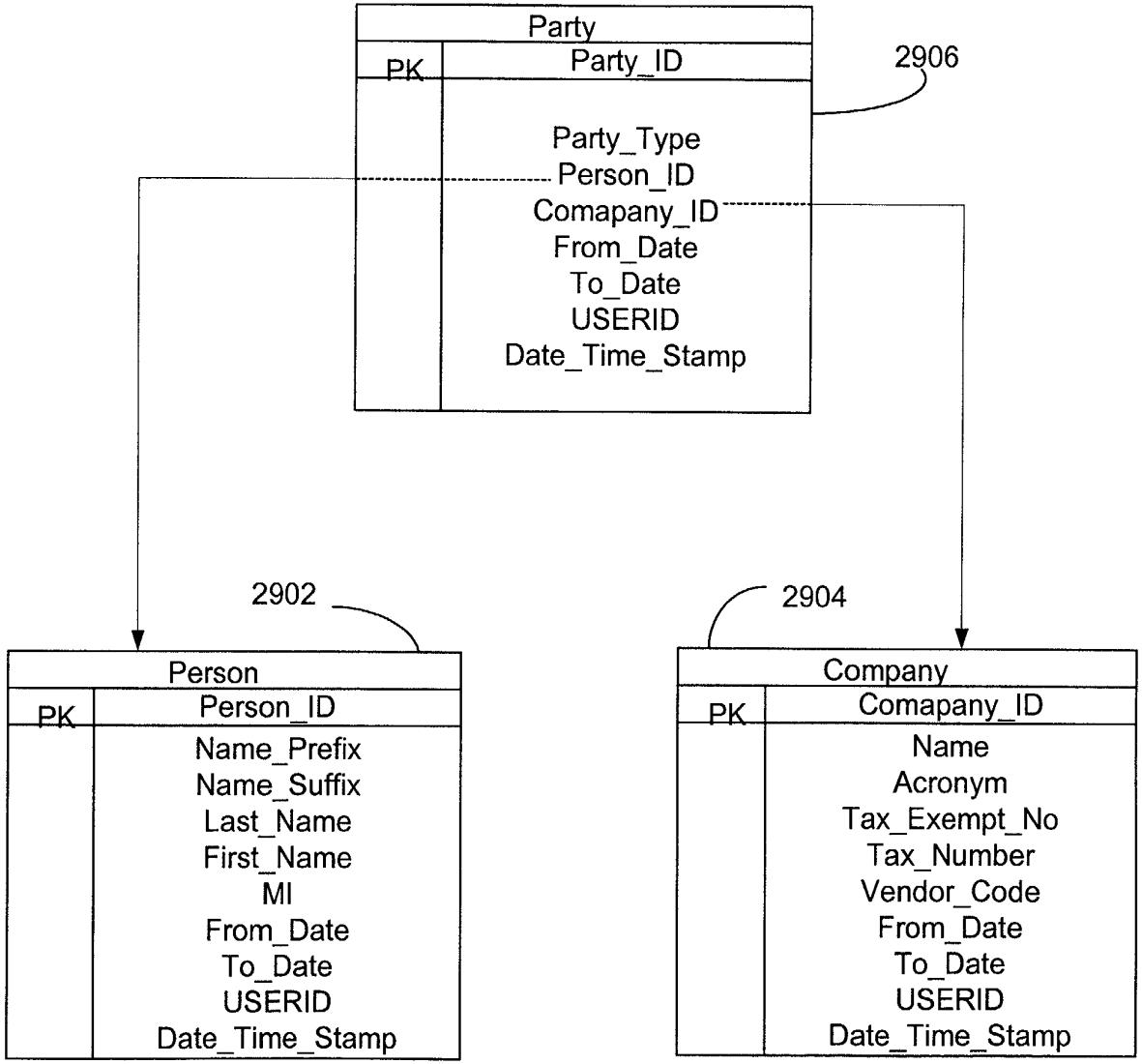
TAX TABLE

TAXDIST-ID1, (A%)
TAXDIST-ID2, (B%)
TAXDIST-ID3, (C%)
TAXDIST-ID4, (D%)
TAXDIST-ID5, (E%)
TAXDIST-ID7, (F%)
TAXDIST-ID8, (G%)
TAXDIST-ID9, (H%)
TAXDIST-ID10, (I%)
TAXDIST-ID11, (J%)
TAXDIST-ID12, (K%)

2802

FIG. 28.

FIG. 29.


Party
PK
Party_ID
Party_Type
Person_ID
Comapany_ID
From_Date
To_Date
USERID
Date_Time_Stamp
2906
2902
Person
PK
Person_ID
Name_Prefix
Name_Suffix
Last_Name
First_Name
MI
From_Date
To_Date
USERID
Date_Time_Stamp
2904
Company
PK
Comapany_ID
Name
Acronym
Tax_Exempt_No
Tax_Number
Vendor_Code
From_Date
To_Date
USERID
Date_Time_Stamp

3008	CATEGORY LEVEL (3002)	NAME (3004)	DESCRIPTION (3006)
	AAA	ESTORE 1	VENDOR - ABC NURSERY
3010	AAB	ESTORE 2	VENDOR - XYZ FLORISTS
	.	.	.
	.	.	.
	.	.	.
	.	.	.

FIG. 30a.

	CATEGORY LEVEL (3012)	ITEM NAME (3014)	ITEM DESCRIPTION (3016)
3018	AAA	ESTORE 1	
3022	AAA001	TELEPHONES	
3024	AAA002	COMPUTERS	
3026	AAA001AAA	CORDLESS PHONES	
3028	AAA001AAA001	9 MHZ	
3030	AAA001AAA002	2.4 GHZ	
3032	AAA001AAB	DESKTOP	
3034	AAA001AAC	WALL MOUNT	
3020	AAB	ESTORE 2	
3036	AAB001	TELEPHONES	

FIG. 30b.

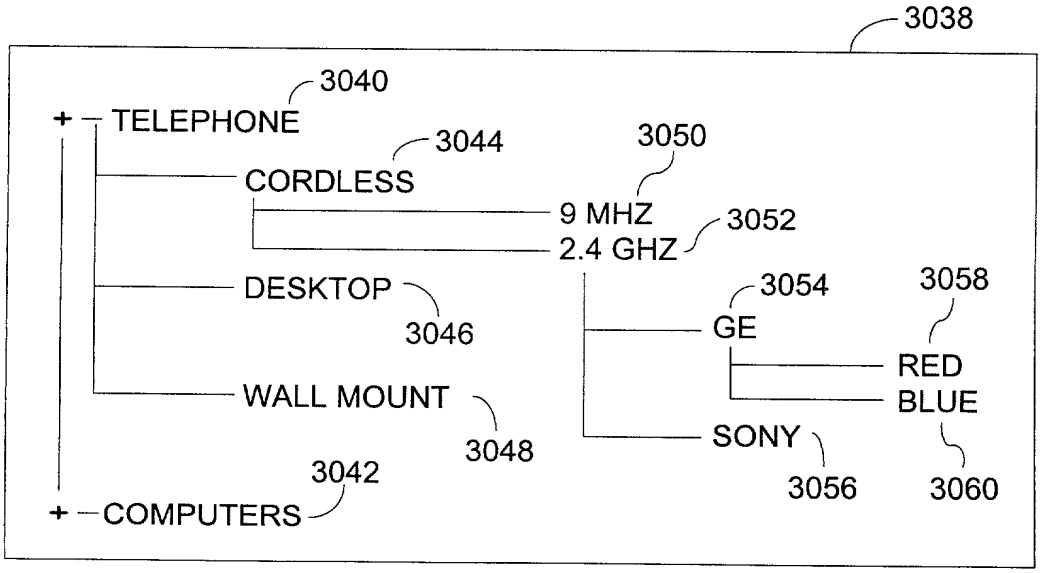


FIG. 30c.

3102 REC. #	3104 CLIENT ID	3106 HEATED SEAT	3108 AUTO WIPERS	3110 ROOF
1	C-001		VENDOR 1	SOLID
2	C-002	DRIVER ONLY		SOLID
3	C-003	DRIVER/ PASS	VENDOR 2	MOON
4	C-004			SUN

3100

FIG. 31a.
(PRIOR ART)

3102 REC. #	3104 CLIENT ID	3106 HEATED SEAT	3108 AUTO WIPERS	3110 ROOF
1	C-001		W001	R001
2	C-002	HS001		R001
3	C-003	HS002	W002	R002
4	C-004			R003

3120

FIG. 31b.
(PRIOR ART)

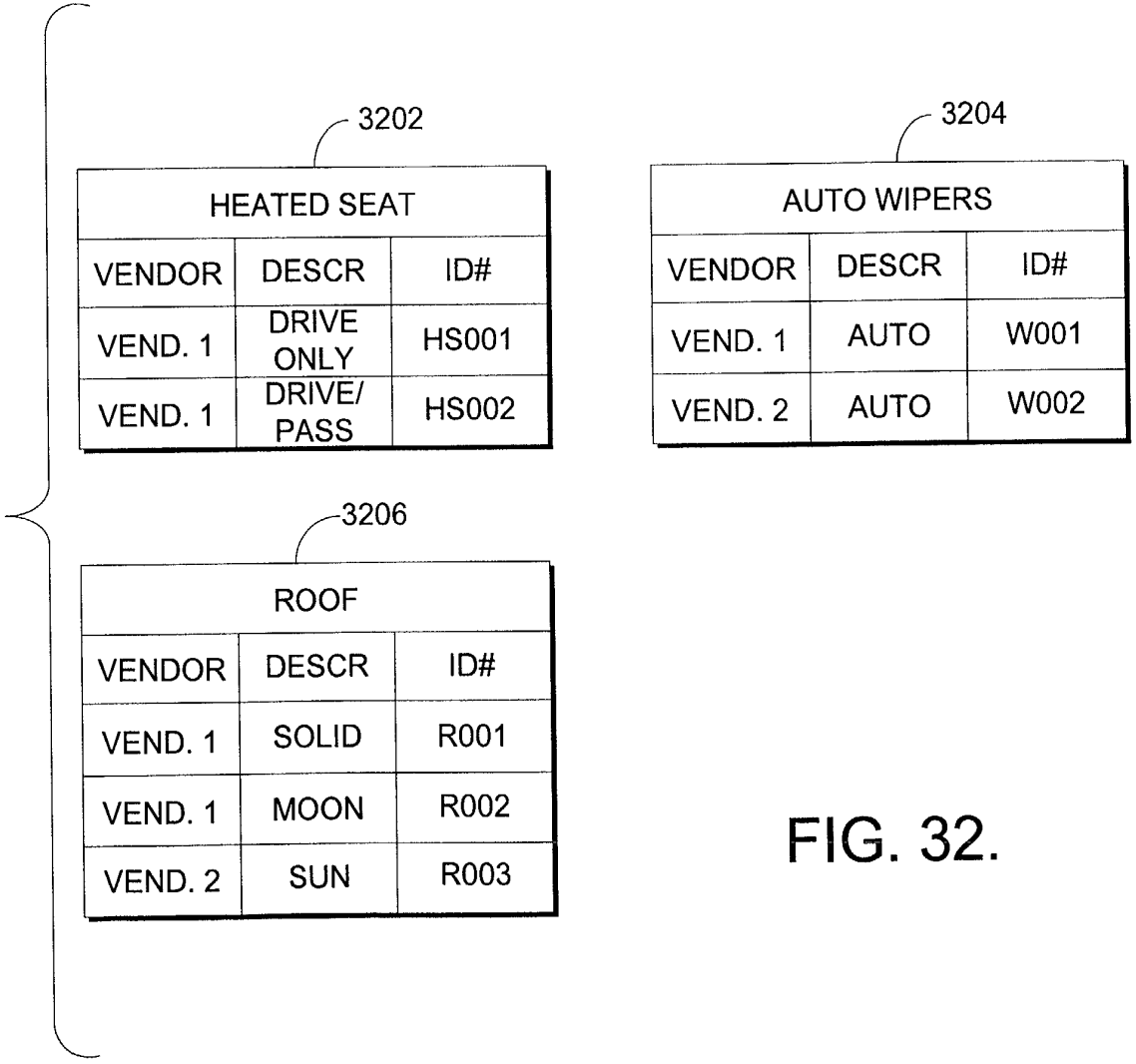

3202
HEATED SEAT
VENDOR
DESCR
ID#
VEND. 1
DRIVE ONLY
HS001
VEND. 1
DRIVE/ PASS
HS002
3204
AUTO WIPERS
VENDOR
DESCR
ID#
VEND. 1
AUTO
W001
VEND. 2
AUTO
W002
3206
ROOF
VENDOR
DESCR
ID#
VEND. 1
SOLID
R001
VEND. 1
MOON
R002
VEND. 2
SUN
R003

FIG. 32.

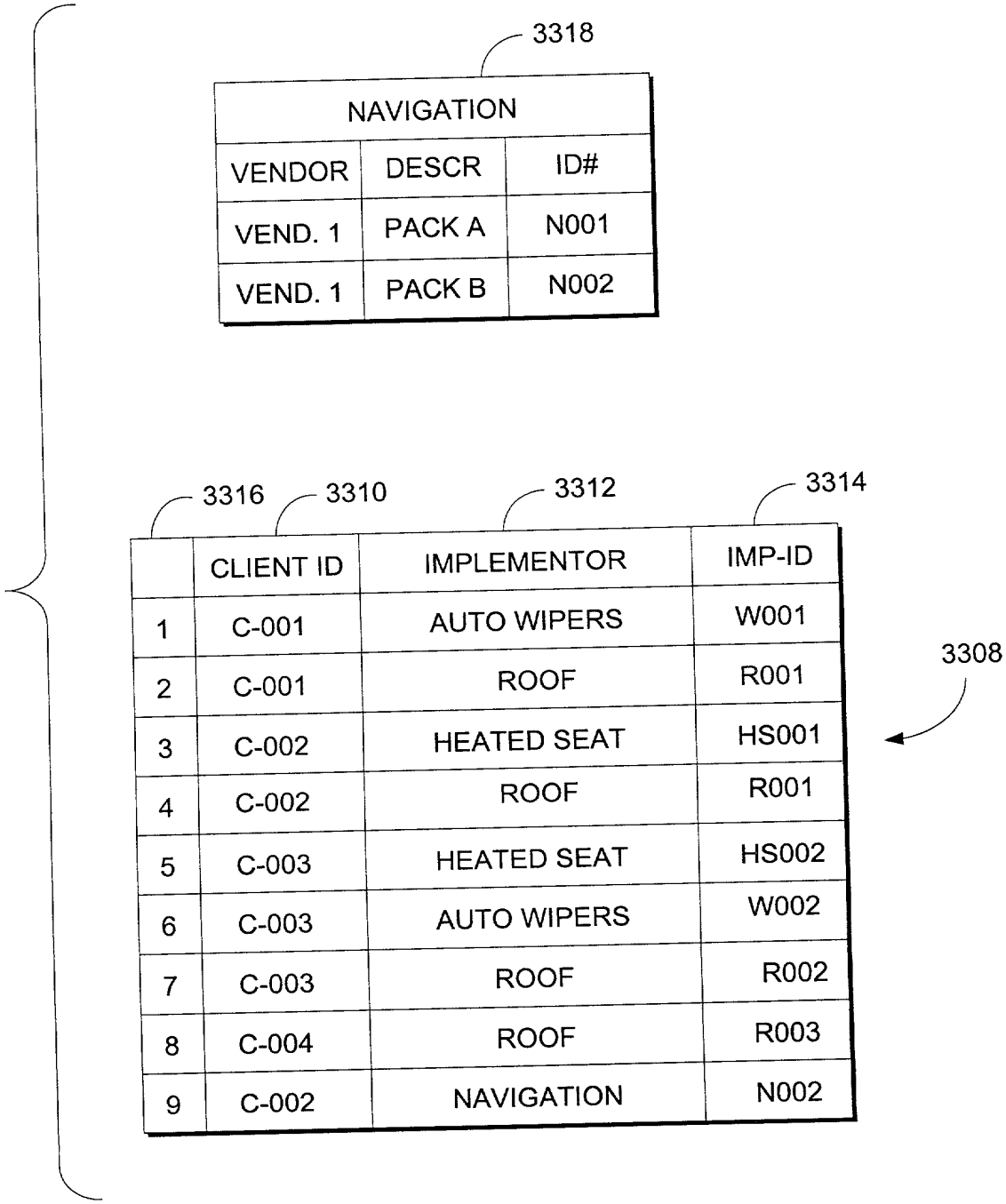

3318
NAVIGATION
VENDOR
DESCR
ID#
VEND. 1
PACK A
N001
VEND. 1
PACK B
N002
3316
3310
3312
3314
3308
CLIENT ID
IMPLEMENTOR
IMP-ID
1 C-001 AUTO WIPERS W001
2 C-001 ROOF R001
3 C-002 HEATED SEAT HS001
4 C-002 ROOF R001
5 C-003 HEATED SEAT HS002
6 C-003 AUTO WIPERS W002
7 C-003 ROOF R002
8 C-004 ROOF R003
9 C-002 NAVIGATION N002

FIG. 33